

LOGIC

Made familiar and easy to
Young Gentlemen and Ladies.

To which is added, a
COMPENDIOUS SYSTEM
O F,
M E T A P H Y S I C S,
O R,
O N T O L O G Y.

Being the
FIFTH VOLUME
O F T H E
CIRCLE OF SCIENCES, &c.

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F



By the KING's Royal Licence.

To the Right Honourable
FRANCIS THOMAS,
Earl of KERRY.

THIS
ART of LOGIC

Is humbly Inscrib'd

B Y

His Lordship's

most obedient Servants,

A z *The EDITORS.*





PREFACE.

THOUGH it must be confess'd, that LOGIC is a Subject of too difficult a Nature for the tender Capacities of Children, yet we flatter ourselves that the following little Treatise, wherein the Rudiments of the Science are laid down in the plainest Manner possible, may be of some Service to the British Youth, as it will diffuse a Light over their Understanding, assist their Reasoning Powers, and lead them on to such Improvements in Knowledge as are to be expected from Years of Maturity.

Logic indeed, as formerly taught by the Schoolmen, was of little Use but

to furnish the Tongue with Debate and Controversy ; and therefore many People have entertain'd such a Prejudice against it, as to think this useful Art not worthy of their Notice, much less of the Study and Application it requires. But as a Modern Logician (to whose excellent Writings we own ourselves indebted) observes, " True Logic is not " that noisy Thing that deals all in " Dispute and Wrangling, to which " former Ages had debased and con- " fined it ; yet its Disciples must " acknowledge also, that they are " taught to vindicate and defend the " Truth, as well as to search it out. " True Logic doth not require a long " Detail of hard Words to amuse " Mankind, and to puff up the Mind " with empty Sounds, and a Pride of " false Learning ; yet some Di- " stinctions and Terms of Art are " necessary to range every Idea in " its

" its proper Class, and to keep our
 " Thoughts from Confusion. The
 " World is now grown so wise as not
 " to suffer this valuable Art to be
 " engross'd by the Schools. In so
 " polite and knowing an Age every
 " *Man of Reason* will covet some
 " Acquaintance with *Logic*, since it
 " renders its daily Service to *Wisdom*
 " and *Virtue*, and to the Affairs of
 " common *Life*, as well as to the Sci-
 " ences."

To enforce this Matter a little far-
 ther, let it be consider'd, that REASON
 is the Glory of Human Nature, being
 that peculiar Characteristic whereby we
 are distinguish'd from other Animals,
 and raised above the brute Part of the
 Creation. This is a common Gift which
 the wise Creator has bestow'd upon all
 Mankind; though all are not favour'd
 with it by Nature in an equal Degree:
 But the acquired Improvements of it

in different Men make a much greater Distinction between them than Nature has made. Nay, we may venture to affirm, (as the judicious Author just quoted observes) that the Improvement of this noble Faculty has " raised the Learned and the Prudent in the European World almost as much above the Hottentots and other Savages of Africa, as those Savages are by Nature superior to the Birds, the Beasts, and the Fishes."

Now to teach us the right Use of our Reason, or Intellectual Powers, and the Improvement of them in ourselves and others, is the Business and the End of Logic : And it is by a proper Cultivation of our Reason that we are better enabled to distinguish Good from Evil, as well as Truth from Falshood ; both which Things are of the greatest Concern and Importance, whether we regard our Happiness in this

this Life, or our eternal Happiness hereafter.

I believe it will not be disputed, that the Pursuit and Acquisition of Truth is of infinite Concernment to Mankind. By this we become acquainted with the Nature of Things, and their various Relations to each other : By this we discover our Duty to God, and to our Fellow-Creatures : By this we arrive at the Knowledge of Natural Religion, and learn to confirm our Faith in Divine Revelation. In a word, our Wisdom, Prudence and Piety, our present Conduct and our future Hope, are all influenc'd (in some Degree or other) by the Use of our rational Powers in our Enquiries after Truth.

But perhaps it may be ask'd, Of what Necessity is the Art of Logic ? Cannot a Man form his Judgments aright, distinguish Truth from Falshood, conduct himself prudently, and arrive at a State

State of Virtue and Happiness, without understanding all the technical Language and Formality of Rules which Logicians have invented ? Yes certainly : It must be acknowledged, that the Share of Common Sense, which Men enjoy as reasonable Beings, generally proves sufficient to conduct them in the ordinary Affairs of Life ; but it is a higher Advancement and a farther Assistance of our rational Powers, that is designed by and expected from Artificial Logic : And a little Consideration will convince any one, that it requires some Skill arising from Art and Experience, as well as a natural Strength of Understanding, to carry our Enquiries beyond the more obvious Generalities of a Subject, to follow it through all the Intricacies and Objections that may arise, and to clear the Consistency of it in all its Parts. So that let a Man's Strength

Strength of Genius be ever so great; if he refuses to make use of that Assistance which is offer'd him in the Ways of abstruse and close Reasoning, he will infallibly find himself either totally lost, or very much bewilder'd.

By natural Sagacity a Man frequently perceives that there is something faulty or sophistical in another's Reasoning, but is incapable at the same time of discovering where the Fault lies. In such Circumstances it must be very desirable to have the Mark pointed out precisely, against which all his Force should be levell'd, to have his Thoughts put into such a regular Train as may enable him to unravel the Difficulty, apprehend the true State of the Question, and thoroughly examine and weigh its Consequences. Every one, I believe, who makes any Pretensions to good Sense, will endeavour to form to himself a rational Method of thinking
and

and arguing ; and when once he has attain'd it, I dare say he will not repent of the Trouble that it cost him.

We acknowledge farther, that in Discourses upon ordinary Matters we have no occasion to be at the Pains of continually applying a common Standard, or tying ourselves up to the Strictness of Scholastic Forms, in order to perceive the Agreement or Disagreement of Ideas, and thereby distinguish Truth from Falshood : But yet it will be found of no small Service to learn those general Rules, which are applicable, as a Test, to all Reasoning, however varied or disguised by the Advantage of Wit or Eloquence. " SYLLOGISM (says a good Writer on this Subject) is a Measure to us in the Management and Disposal of our own Thoughts, and in our Reasonings and Discourses to others ; where-

“ wherein we cannot otherwise avoid
“ Confusion and Disorder, than by
“ considering what the Conclusion is
“ we would prove, by what Mediums
“ we would prove it, and to which
“ Part of the Argument (*Major,*
“ *Minor,* or *Conclusion*) this or that
“ particular Part of our Discourse re-
“ lates. If our Discourse be not al-
“ ways laid out in the exact Forma-
“ lity of *Syllogism*, yet we should
“ have a Kind of Syllogistical Plan
“ before us; that so in every Stage
“ of our Discourse we may know
“ whereabouts we are, and what we
“ are doing.

“ *Syllogism* moreover will be a Mea-
“ sure whereby to judge of the Dis-
“ courses of others, pointing out what
“ is the Conclusion they offer to
“ prove, what the Premisses are
“ whereby they prove it, and whe-
“ ther

“ ther such Premisses do indeed prove
 “ such Conclusion. By reducing it
 “ to Syllogism you see all the Parts
 “ of an Argument in Miniature, what
 “ truly belongs to it, and what is
 “ put in only for Shew, and Pomp,
 “ and Amusement ; and every Part
 “ in its proper Place and Order, and
 “ withal what Connexion one Part
 “ has with another.”

As Syllogistical Arguments, so likewise Scholastic Distinctions are in many Cases necessary to prevent Confusion, and therefore we should not entirely reject them, or take Offence at them when rightly applied. The Subtleties of Scholastic Learning have indeed of late been very much decried, and not without Reason ; but a Man of thoughtful Disposition, Leisure, and mature Judgment, will always find useful Entertainment among the Writings of the

more Wor-

more ingenious Schoolmen: Where, if he does not always acquiesce in their Determinations, yet he will find and acknowledge " a remarkable Sagacity in " canvassing a Question; and though " he will sometimes laugh at the " Doubles of their Distinctions, and " the Mist of Words which they industriously throw over the plainest Subjects, yet he may from thence be apprized how to guard against the same little Subterfuges and Arts of Disguise, which, by Misapplication of Language, are every Day put in Practice in Matters of Civil Commerce and Conversation."

Having said thus much of the Usefulness of the Art of LOGIC, it remains (in Conformity to the Method observed in the preceding Volumes of this Work) to give some Historical Account of its Origin and Progress in the more World.

The

The first Philosophers were so entirely bent on the Study of Nature, as to have little Regard to Logical Speculations. In Pythagoras's School there was no Reasoning but Authority, no Appeal from the Master's Dictates ; and though we meet with good Definitions in the Writings of his Followers, yet Logic was then unknown, and its Rules uncultivated. Zeno Eleates was the first who found out the natural Train of Principles and Consequences in a Discourse, which he form'd into a regular Art : so that the Sum of his Logic was to observe the Dependence and Connection that Propositions bear to each other, and accordingly to range them in their natural Order. He made use of Dialogue, introducing two or more Persons, who by a Course of Questions and Answers reason'd methodically upon all Subjects ; and hence he gave his new-invented Art
the

the Name of Dialectica, which Logic retain'd after the Form of Dialogue was laid aside. But Zeno being a great Master of Subtilty, too much perplex'd and embarrass'd this Method; and Protagoras, his Scholar, refin'd upon it, and carried it farther into Sophistry.

Euclid of Megara applied himself to the improving of the Subtilties of Logic, and introduced a more lively and vehement Manner of Debate; which he carried to such an Extreme, that he was reproached as having possess'd the People of Megara with a Madness of Disputing, by teaching them that sophistical Method which Socrates condemn'd. It was this Euclid and his Scholar Eubulides that invented those Sophisms which were afterwards so much celebrated in the Schools, though in reality they have nothing in them but Art the

their Acuteness, (as the Sorites, the Dilemma, &c.) together with all that Chicane of Dispute which brought Logic into Contempt at Athens, and obliged Socrates to expose and ridicule it, in order to undeceive the People.

Notwithstanding what we have said of Zeno, Cicero makes Socrates the Author of Logic, which he says he fetch'd from Heaven for the Benefit of Mankind. In effect, this Philosopher made a System of all the Precepts of the Art, and demonstrated the Use and true Practice of them in his familiar Conversation. He wrote nothing; but Plato has preserv'd the Logic of his Master, which has nothing peculiar as to the disputation Part, of which Socrates had but a very mean Opinion. Of the Socratic Method of disputing we have given Examples in the following Treatise; but it has been observ'd,

that

that Socrates in his Reasoning applied himself more to Questions than Answers, because the Character of his Genius was fitter to raise Doubts than to resolve them.

Till we come to Aristotle, we meet with nothing fix'd and regular in Logic. It was this great Genius that first discover'd the Way of arriving at Science by the Evidence of Demonstration, and of proceeding to such Demonstration, in a geometrical Method, by the conclusive Form, the infallible Rule of SYLLOGISM. In the Composition of Syllogisms (he observes) there must be nothing false in the Matter, nothing vicious in the Form; and the Rules he has laid down concerning them have been allow'd by the Learned to be just and solid, and agreeable to the natural Course of Reason. It is true, the chief Aim and Scope of Aristotle's

Logic is not so much to teach Men the Art of true Reasoning, as to enable them to bring false Arguments to a proper Trial and Scrutiny, and to guard against the Sophisms which were then in Vogue, and which he employs himself to detect and defeat.

The Stoicks refined more upon Logic than all the other Sects of Philosophers; and seem to have arm'd themselves with all its Thorns, and commenc'd the most formidable Wranglers of the Schools, to support their vain and extravagant Notions. To this Purpose they invented new Modes of Syllogism, less natural than those of Aristotle, but more cunning and captious. They pretend, that Chrysippus himself, one of their Sect, wrote no less than three hundred Volumes upon the Art of Logic; but his Refinements, (as Seneca has observ'd) only tended to *bregit*

break and enervate its masculine Spirit. Thus their Logic became slight and superficial, being little more than a Dispute about Names and their Signification ; and this laid the first Foundation of that Philosophy which was revived by the Nominalists many Ages after. However, Aristotle's Works being conceal'd from the Public, the Logic of Zeno remain'd a long time chiefly in Vogue, and was one of the first that was taught at Rome ; the Subtleties whereof Plautus has humorously exposed in his Comedies, and Cicero in many Places of his Works.

Epicurus's Method of Reasoning, who did not approve of the Niceties and Quibbles of the Stoicks, was less artificial than that of Zeno, and carried on with greater Simplicity. He knew nothing of the analytical Method of Division and of Argumentation, which

indeed render'd him weak and little in Disputes. In searching after Truth he proceeded only by the Senses, which he term'd the first and natural Light of Mankind, as Reflection upon the Judgment of Sense was his second. The Simplicity of his Logic was in a good measure owing to the Clearness of his Terms ; he being of Opinion, (and Experience shews it to be true) that the common Source of Disputes is the Ambiguity of Propositions. Thus he resolv'd all Fallacies and Sophisms by the bare Explication of the Words ; concluding, that if Men are not quite stupid, they *must* needs agree in their Sentiments, when once they understand each other's Meaning. In a Word, a Soundness and Simplicity of Sense, assisted with some natural Reflection, was all the Logic of Epicurus, who was

was not very curious about Modes and Formalities.

When the Writings of Aristotle, which had lain hid for many Ages, were once discover'd, his Method of Reasoning was generally follow'd, as the most solid and certain, and in its highest Perfection, by the Invention of Syllogism. Galen, who had form'd some different Notions of Logic, at length acquiesced in that of Aristotle, and contributed much to spread its Reputation. Simplicius, Ammonius, and others among the Greeks; St. Austin, Boethius, Thomas Aquinas, and many more of the Latins, (not to mention the Arabians) studied Aristotle's Logic as their Pattern and Original. On this Model the Schoolmen form'd their Character, who (to the Shame of Reason) reign'd with too long and too absolute a Sway; but though they fell

into a Division of Nominalists and Realists, yet both Parties proceeded upon Aristotle's Principles in their Debates.

Laurentius Valla undertook to reform the Aristotelian Logic, by reducing the Ten Predicaments to Three, and by cutting off the third Figure of Syllogism ; but his Enterprize did not succeed. Ludovicus Vives attempted another Sort of Reformation, (chiefly with respect to the Schoolmen) but with no better Success. And as for Peter Ramus, who laid down the Plan of a new Logic, he has rather spoil'd than mend'd what he has borrow'd from Aristotle. Cardan composed a Logic from the Stock of his Predecessors, which has little valuable in it but Aristotle's geometrical Method.

Smiglesius, a Jesuit, is one of the last that have written on Aristotle's Logic, which he has done with a great deal

deal of Justice and Clearness : But Van Helmont in a Logical Treatise has extravagantly pretended to overthrow the System of Aristotle, without any Ground to support his own : Descartes began a Logic, which he left unfinish'd, and which his Followers have endeavour'd to illustrate and improve. M. Rapin reckons him the best Notionalist among the Moderns, whatever he delivers being well conceiv'd, and discovering that Depth of Meditation which was his peculiar Excellence. According to the same Critic,

" of the modern Treatises of Logic,
 " the most accomplish'd in all its
 " Parts is that which Peter Mounyer,
 " a Physician of Grenoble, has pub-
 " lish'd on the Works of Honoratus
 " Faber the Jesuit. What he has
 " written on the Art of Syllogism
 " and Consequence, which is his main
 " Bu-

" Business, is an Original in its Kind :
 " No Man has ever carried these *mu-*
 " Speculations farther, or has more *PH-*
 " exhausted the Matter, by reciting *Sch-*
 " the almost infinite Modes and Con- *per-*
 " nections of the Syllogistic Terms." *Ob-*
 To him therefore, and other *Writers of* *ral-*
 the same Kind, we refer those who are *ba-*
 desirous of being acquainted with such *con-*
 Speculations in their utmost Extent. As *ces*
 for our Parts, our Design being cal- *of*
 culated for the Instruction of Youth, *for*
 and to introduce them to an Acquain- *tur*
 tance with the Art of Logic as it is *the*
 now taught amongst us, freed from the *ab*it**
 Obscurity which cover'd it for many *Me*ans**
 Ages, we have chiefly follow'd the Step *im*pro*ved***
 of our learned Countryman Dr. Watts *in*
 whose Treatise on this Subject seem'd *be*ing**
 suited to our Purpose, and which ha*n*th*at***
 deservedly met with universal Approba*tion.*

Befor

nd: Before we conclude this Preface, we
eese must say something concerning META-
ore PHYSICS, or ONTOLOGY, a brief
ing Scheme of which we thought no impro-
on- per Addition to the Art of Logic. The
as." Object of this Science is BEING in gene-
s of ral; but the greatest Part of those who
are have handled the Subject seem to have
such confin'd it to Speculations about Substan-
ces purely spiritual, such as the Soul
of Man, Angels, and GOD himself;
for which Reason Aristotle terms it Na-
tural Divinity.

This Philosopher seems to have been
the first Founder and Inventor of the
abstracted Method of Reasoning used in
Metaphysics, and the Consideration of
immaterial Beings; for his Predecessors
in Philosophy deliver'd scarce any Thing
that was just and solid on these Sub-
jects. Pythagoras indeed is said to
have

have learnt the Unity of the God-head from the Hebrews, when he travel'd into Egypt, and to have taught it to the Greeks ; but he likewise borrow'd all the mysterious and visionary Notions of the Egyptians relating to Spirits and Intelligences, which they supposed were invested with fine and subtil Bodies. Plato took this Doctrine from Pythagoras, and Zeno afterwards transcribed it from Plato. Apuleius indeed says, that nobody has spoken better concerning Spirits and Divine Matters, than Plato and his Followers : But Heathen Antiquity affords nothing on this Subject, composed of so much Strength of Reason as Cicero's Books of the Nature of the Gods. The Writings of the later Platonists under the Roman Emperors on the Subject of Metaphysics are weak and inaccurate : Nor are the Greek Fathers very exact

in their Discourses on Angels and Spirits, on account of the false Notions which many of them brought out of Plato's School. However, the Being of a God, the Immortality of the Soul, the Existence of good and evil Angels, and other important Truths of Religion, have been so fully reveal'd, and placed in so clear a Light, under the Christian Institution, as leaves no Room to entertain a Doubt concerning them.— But we are rambling a little from what relates to our present Purpose, and it is Time to return.

Many and large Volumes have been written on the Subject of Metaphysics; and a whole Tribe of Commentators have employ'd their Pens upon Aristotle's Metaphysics in particular, which were taught and admired in the Schools for many Ages, though his most

most zealous Defenders allow them to be the most imperfect of all his Works. But this Science (as well as Logic) was brought into Contempt by the vast Multitude of rude and barbarous Terms, of obscure and perplex'd Definitions, of dry and barren Conceptions and Reasonings, with which the Schoolmen had embarrass'd it, but from which it has been rescued by modern Writers on the Subject, and therefore should not be entirely thrown aside as of no manner of Use or Signification. Our Ontology is only a short Sketch of the Science ; but we thought our Logic would not be compleat without it, as they are nearly related and even connected with each other. To induce the Reader to the Study of Ontology, we shall give him the Sentiments of Dr. Watts on this

Head,

Head, with which we shall conclude
our Preface.

" In order (*says he*) to make due
" Enquiries into all the Particulars
" which go towards the *compleat* and
" *comprehensive* Idea of any Being,
" the Science of *Ontology* is exceeding
" necessary. This is what was wont
" to be call'd the *first Part of Meta-*
" *physics* in the *Peripatetic Schools*.
" It treats of *Being* in its *most general*
" *Nature*, and of all its *Affections and*
" *Relations*. I confess the old *Popish*
" *Schoolmen* have mingled a Number
" of *useless Subtleties* with this *Sci-*
" *ence*; they have exhausted their own
" *Spirits*, and the *Spirits* of their
" *Readers*, in many laborious and in-
" *tricate Trifles*, and some of their
" Writings have been fruitful of *Names*
" " without

“ without Ideas, which have done
“ much Injury to the sacred Study of
“ Divinity. Upon this Account ma-
“ ny of the Moderns have most un-
“ justly abandon'd the whole Science
“ at once, and thrown abundance of
“ Contempt and Raillery upon the
“ very Name of *Metaphysics*: But this
“ Contempt and Censure is very un-
“ reasonable; for this Science, sepa-
“ rated from some *Aristotelian* Foo-
“ leries and *scholastic* Subtleties, is so
“ necessary to a distinct Conception,
“ solid Judgment, and just Reason-
“ ing on many Subjects, that some-
“ times it is introduced as a *Part of*
“ *Logic*, and not without Reason.
“ And those who utterly despise and
“ ridicule it, either betray their own
“ Ignorance, or will be supposed to
“ make their Wit and Banter a Re-
“ fuge

[xxxiii]

" fuge and Excuse for their own La-
" ziness. Yet thus much I would add,
" that the later Writers of *Ontology*
" are generally the best on this Ac-
" count, because they have left out
" much of the ancient Jargon."



b C O N-

Chayz I

and the child who
has been brought
into the world
is to receive
the name of Jesus.
It is well known
that Jesus is the
name of God.

17

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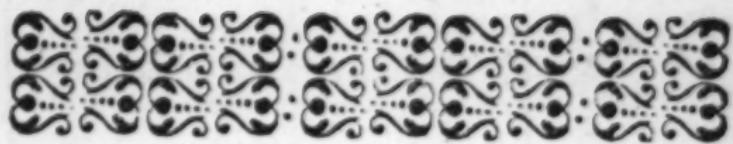
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LOGIC



LOGIC.

INTRODUCTION.

Of Logic, and its Parts.



Q. HAT is LOGIC?

A. It is the Art of Thinking and Reasoning justly, or of making a right Use of the Faculties of the Mind in our Enquiries after Truth, and the Communication of it to others.

Q. Whence is the Term derived?

A. From the Greek Word *Logos*, Discourse.

B

Q. Into

[2]

Q. Into how many Parts is *Logic* divided?

A. Into four, because so many *Faculties* or *Operations* of the Mind are more immediately concern'd therein.

Q. Which are those?

A. *Perception*, *Judgment*, *Reasoning*, and *Disposition*; each of which shall be treated of in Order.



P A R T

P A R T I.

Of Perception.

QWHAT is PERCEPTION ?

A. *Perception, Conception, or Apprehension*, is that *Act* (or rather *Passion*) of the Mind whereby it becomes *conscious* of any thing, or *forms an Idea* of the Objects set before it.

Q. What is treated of in this first Part of *Logic*, which is grounded on *Perception* ?

A. Of this first Part of *Logic* treats of all *Sensible Ideas*.

M

C H A P. I.

Of the Nature of IDEAS in general.

Q. **W**HAT is an Idea?

A. A *Notion*, *Image*, or *Representation* of any thing, as conceived by the Mind.—Thus, for Instance, if we think of a *Horse*, a *Pigeon*, or any other Object ; the *Notion* or *Image* thereof, which is form'd in the Mind, is call'd the *Idea* of a *Horse*, a *Pigeon*, &c.

Q. Whence is the Term *Idea* derived ?

A. From the Greek Word *eido*, to see ; because the Mind perceives and sees, as it were, within itself the Object about which it is employ'd.

Q. How do we come by our *Ideas* ?

A. The Mind gains all its Ideas either from *Sensation* or *Reflection* ; that is, either by means of the Senses, or

or by reflecting on its own Operations, and observing what passes within itself. Thus, for Instance, by Seeing we obtain the Ideas of *Colours*; by Hearing we have those of *Sounds*; by Tasting we get those of *Bitter*, *Sweet*, *Sour*, &c. And from the latter Source, i. e. from turning our Thoughts inward upon the Actions of our own Souls, arise the Ideas of *Affent*, *Dissent*, *Judging*, *Reason*, *Understanding*, *Will*, &c. But of the Origin of our Ideas we shall say more hereafter.

C H A P. II.

Of the OBJECTS of Perception.

Q. **W**HAT is an Object of Perception?

A. It is that which is represented in the Idea; that which is the Archetype

or *Pattern*, according to which the Idea is form'd.

Q. Have these Objects no other Name ?

A. Yes ; all Object of our Ideas are call'd *Themes*, whether they are *Entities* or *Non-entities*, that is, *Beings* or *Not-beings* , for Non-existence may be proposed to our Minds, as well as real Existence or Being.

Q. How is *Being* usually consider'd ?

A. *Being* is generally consider'd under the Distinction of *Substance* and *Mode*.

Q. What is a *SUBSTANCE* ?

A. It is a Being which *subsists by itself*; that is, has an *Existence of its own*, a *separate Existence*, independent of any other created Being.

Q. What do you mean by this Independence ?

A. All

A. All that I mean is, that a Substance cannot be *annihilated*, or utterly destroy'd and reduc'd to nothing, by any Power inferior to that of its Creator ; though its particular *Form*, *Nature*, and *Properties* may be alter'd and destroy'd by many inferior Causes. Thus, for Example, *Wood* may be turn'd into *Fire*, *Smoke* and *Ashes*; a *House* into *Rubbish*, and *Water* into *Ice* and *Vapour*; but the Substance or Matter of which they are made still remains, though the Forms and Shapes of it are very much alter'd. Let a *Substance* undergo as many Changes as you please, yet still it is a *Substance*; and in this Sense it depends upon God alone for its Existence.

Q. How many Kinds of Substances are there?

A. They may all be comprehend-ed, in the general Division of *spiritual* and *corporeal*; that is, what we com-

monly understand by the Words *Body* and *Spirit*.

Q. But are Substances no otherwise distinguished ?

A. Yes ; they are distinguish'd into *Simple* and *Compound*, *Pure* and *Mix'd*, *Animate* and *Inanimate*.

Q. What are *Simple* Substances ?

A. Those which have no Mixture or Composition in them of different Natures. Such are either *Spirits*, and in this Sense God is call'd a *Simple Being* ; or the *Elements* of natural Bodies, that is, those *first Principles* or *Corpuscles* of which all Bodies do originally consist.

Q. What is meant by *Compound* Substances ?

A. Such as are made up of two or more Simple ones. So every thing in the whole material Creation, that can by the Art of Man be resolved into

into different Substances, is a *Compound Body* in a philosophical Sense.

Q. Are the Words *Simple* and *Compound* used in any other Sense?

A. Yes ; in a *vulgar* Sense a *Needle* is call'd a *Simple Body*, being made only of Steel ; but a *Sword* or a *Knife* is a *Compound*, because its Haft or Handle is made of Materials different from the Blade.

Q. What do you mean by *Pure* and *Mix'd* Substances ?

A. These Terms, when applied to Bodies, are somewhat akin to *Simple* and *Compound*. So *Gold* is said to be *pure*, if it has no Alloy, no Mixture of other Metal in it : But if any other Mineral or Metal be mingled with it, it is call'd a *mix'd Body* or Substance.

Q. What is understood by *Animate* Substances ?

A. Such as are endued with *Life* and *Sense* ; as all Sorts of *Animals*,
viz.

viz. *Men, Beasts, Birds, Fishes, &c.*—
Vegetables are also reckon'd amongst
animated Substances, having within them
a Principle of Life (as it may be call'd)
whereby they grow, increase, and pro-
duce their Species, though void of Sen-
sation. Such are *Trees, Herbs, Plants,*
&c.

Q. What is meant by *Inanimate*
Substances ?

A. Those which have no *Life* nor
Sense; as *Earth, Air, Water, &c.*

Q. I am satisfied as to Substance;
but what do you understand by a
Mode?

A. A Mode (or *Manner of Being*)
is that which cannot subsist *in and by*
itself, as a Substance does, but belongs
to and subsists by the Help of some
Substance; which, for that Reason, is
call'd its *Subject*.—In other Words,
A Mode has no Existence of its own,
but

but depends on some Substance for its very Being.

Q. In what manner does *Mode* depend on *Substance* ?

A. Not as a Being depends on its *Cause*, (for so *Substances* themselves depend on *GOD* their Creator) but a Mode must necessarily exist in some Substance, or it cannot exist at all.— Thus *Shape* is a Mode of *Body*, and cannot subsist without it ; as *Knowledge* is a Mode of the *Mind*, on which it is equally dependent : For were there no *Body* or *Matter*, there could be no *Shape* ; and were there no *Mind* or *Spirit*, there could be no such thing as *Knowledge*.

Q. Can't you give one familiar Instance, to explain the Difference between *Mode* and *Substance* ?

A. Yes ; if we reflect on a *round* Piece of *Wax*, it is plain the Wax is a Thing which may subsist without that

that *Roundness* : Make it *square*, *triangular*, alter its Figure never so much, yet still it is *Wax*; and for this Reason we call it a *Substance*. On the contrary, the *Roundness* is so dependent on the *Wax*, that it cannot subsist without it, or some other Substance; for we cannot conceive of *Roundness* distinct and separate from a *round Body*. And this is what we denominate a *Mode*.

Q. Are *Modes* call'd by no other Name?

A. Yes; sometimes they are call'd *Qualities*, *Attributes*, *Properties*, and *Accidents*.

Q. Have not *Modes* their several Divisions, as well as *Substances*?

A. Yes; they are distinguish'd into various Kinds, as *Essential* and *Accidental*, *Absolute* and *Relative*, *Intrinsic* and *Extrinsic*, and several others.

Q. What

Q. What is an *Essential Mode* ?

A. That which belongs to the very Nature or Essence of its Subject ; as *Solidity* in *Matter*, *Thinking* in a *Spirit*, &c.—Of *essential Modes* some are call'd *primary*, as *Roundness* in a *Globe* ; others *secondary*, as *Volubility* or *Aptness to roll*, which is consequent upon the former. The first is call'd the *Difference*, being the distinguishing Attribute of a *Globe* ; and the latter is term'd a *Property*.

Q. What is an *Accidental Mode* ?

A. That which is not *necessary* to the Being of a Thing, but may be wanting, and yet the *Nature* of the *Subject* remain the *same* ; as *Smoothness* or *Roughness*, *Blackness* or *Whiteness*, *Motion* or *Rest*, in a *Globe* or *Bowl* ; for these may be all changed, and yet the Body remain a *Globe* still. Such Modes as these (and no others) are *properly* call'd *Accidents of Bodies*.

Q. What

Q. What is meant by *Absolute* and *Relative* Modes?

A. An *absolute* Mode is that which belongs to its Subject, without respect to any other Being whatsoever : But a *relative* Mode arises from the Comparison of one Body with another. Thus *Motion* is an *absolute* Mode of a Body ; for I can consider a Body as in Motion, without comparing it to any thing else in the whole Creation : But *Swiftness* and *Slowness* are *relative* Modes, the Ideas whereof are produced by comparing the Motion of one Body with that of others ; as the Motion of a Bowl on a Bowling-Green is *swift*, when compared with a *Snail*; and it is *slow*, when compared with a *Cannon-Ball*.—So also *Size* is an *absolute* Mode of a Body, but *Greatness* and *Smallness* are *relative* Ideas.

Q. What

Q. What is an *Intrinsic Mode*?

A. Such as we conceive to be *in* the *Subject* or *Substance* itself; as when we say a *Globe* is *round*, *in Motion* or *at Rest*; or when we call a *Man tall*, or *learned*.

Q. What is an *Extrinsic Mode*?

A. That which is *not in the Subject* itself, but derived from something *external* or *foreign* to it; as when we say a *Thing* is *desired*, *loved*, *hated*, &c. So if I say, *That Post stands within a Yard of the Wall*, I express a *Mode* or *Manner of Being* which is not in the *Post* itself, but which it derives from its *Situation* with respect to the *Wall*.

Q. Which are the other *Divisions* of *Modes*?

A. The Division of *Modes* into *Inherent* or *Adherent*, *Proper* or *Improper*, is so much akin to the last, that
it

it does not deserve to be explained by Examples.

Q. Are there any others that are worth taking notice of ?

A. Yes ; it is proper to observe, that *Action* and *Passion* are reckon'd among the *Modes* of Being. By *Passion* is here meant *suffering* or *bearing* *Action* ; and what *suffers* is call'd the *Patient*, as that which *acts* is term'd the *Agent*.—Thus, when a Smith with a Hammer strikes a Piece of Iron, the *Hammer* and *Smith* are both *Agents* ; and the *Iron* is the *Patient*, because it *suffers* or receives the Blows of the Hammer, as directed by the Hand of the Workman.

Q. Have you any more to add ?

A. Yes ; Modes are farther divided into *Natural* and *Supernatural*, *Civil* and *Moral*.—If I say, *The Apostle Paul was a Man of low Stature, but he was inspired* ; here his *Lowness* of

of Stature is a *natural Mode*, and his being inspired is *supernatural*.—Thus again, if I say that such a one is an honest Man and a free Citizen; here are two Modes, the one arising from his *Honesty*, which is a *moral Consideration*; the other from his being *free of a City*, which is a *civil Privilege*.

Q. Is this all you have to say concerning *Modes*?

A. No; I would have you observe, that though the greatest Part of Modes belong to *Substances*, yet there are some which are only *Modes of other Modes*: For though they subsist in and by a *Substance* as the original *Subject* of them, they are properly and directly attributed to some *Mode* of that Substance. Thus *Motion* is the *Mode* of a *Body*, but *Swiftneſſe* and *Slowneſſe* are *Modes of Motion*: And if I say a Man walks gracefully, it is plain that

Motion is his *Mode* at that Time ; but *Walking* is a particular *Mode* or *Manner* of *Motion*, and *gracefully* is still a farther *Mode* of *Walking*.

Q. You have given me a large Account of *Being* or *Substance*, and its various Kinds of *Modes* ; but how do you explain the Nature of *Not-being*, or *Non-entity* ?

A. *Not-being* will fall under a two-fold Consideration, as it relates either to *Mode* or *Substance*.

Q. How is it to be consider'd with respect to *Substance* ?

A. We may consider *Non-entity* as excluding all *Substance* and consequently all *Modes* ; and this is call'd *pure Nihilism*, or *Nothing*.

Q. How is it consider'd with relation to *Modes* ?

A. When there is a *Non-entity* of *Modes* only, it is consider'd either as a mere *Negation*, or as a *Privation*.

Q. What

Q. What is meant by these Terms?

A. By *Negation* we mean the Absence of that which does not *naturally* belong to the Subject; as the Want of *Sight* in a *Stone*, or of *Learning* in a *Fisherman*: But the Want of *Sight* in a *Man*, to whom it *naturally* belongs, or of *Learning* in a *Physician* or a *Divine*, who ought not to be without it, is call'd a *Privation*.—So the *Sinfulness* of any human Action is said to be a *Privation*, as it consists in a *Want of Conformity* to the Law of GOD.

C H A P. III.

Of the several Sorts of IDEAS.

Q. **H**OW many Kinds of Ideas are there?

A. Ideas may be consider'd according to their *Original*, their *Nature*,

their *Objects*, and their *Qualities*: And this fourfold Division will easily comprise them all.

Q. How are we to consider them with respect to their *ORIGINAL*?

A. It has been the Subject of a great Controversy, *Whether any of our Ideas be innate or no*, that is, *born with us*, and *naturally* belonging to our Minds. This is positively asserted by some, but utterly denied by Mr. Locke, who (in my Opinion) has sufficiently shewn, that all our Ideas are derived from *Sensation* and *Reflection*; of which I have said something already.—But, without entering into this Debate, I think our Ideas, with regard to their Original, may be divided into three Sorts, viz. *Sensible*, *Spiritual*, and *Abstracted*.

Q. What do you mean by *Sensible Ideas*?

A. By

A. By *sensible* or *corporeal* Ideas I mean those which are derived originally from our *Senses*: Such are the Ideas of *Colours, Sounds, Tastes, Shapes, Motions, &c.*

Q. What do you understand by *Spiritual Ideas*?

A. The Word *spiritual* is here used in a *natural*, not in a *religious* Sense, and signifies the same as *mental* or *intellectual*. These Ideas we gain by reflecting on the Nature and Actions of our own Souls, by *meditating, contemplating, and observing what passes* within ourselves. Such are the Ideas of *Thought, Knowledge, Judgment, Reason, Love, Fear, Hope, &c.*

Q. What are *Abstracted Ideas*?

A. These are framed by that Operation of the Mind which we usually call *Abstraction*, whereby we separate some Parts of an Idea from other Parts of it, or consider a Thing simply in itself.

self, without respect to the Subject wherein it resides.—Thus, if we consider *Magnitude* or *Humanity* in themselves, or without being attached to any particular *Body* or *Person*, these are call'd *abstracted Ideas*. *Whiteness* is an *abstracted Idea*, when consider'd in general, and not as residing in *Chalk, Snow, Milk*, or any particular Subject whatsoever. Of the same Nature are our Ideas of *Cause, Effect, Likeness, Unlikeness, Identity, Contrariety*, and innumerable others.—Some indeed have contested the Reality of any such Ideas as those we are speaking of; but to me the Distinction seems to be sufficiently warranted: However, I am apt to think, that upon a strict Examination even our most *abstracted Ideas* will be found to owe their Original to *Sensation* or *Reflection*.

Q. How

Q. How are Ideas distinguish'd with regard to their NATURE?

A. Into Simple and Complex, Compound and Collective.

Q. What is a Simple Idea?

A. It is one uniform Idea, which the Mind cannot distinguish into two or more; such as the Idea of Cold, Heat, Red, Blue, Bitter, Sweet, Motion, Rest, Thought, Will, &c. for in these, and others of the like Nature, our most subtil Penetration cannot discover any Parts or Plurality.

Q. What is a Complex Idea?

A. One that is framed by joining two or more simple Ideas together; as those of a Square, a Triangle, a Man, a Horse, a Tree, &c. which, though often consider'd as single and distinct Things, yet, as they are evidently composed of several Parts, may be divided by the Mind into several Ideas.

Q. What is a *Compound Idea*?

A. That which contains several Ideas of a *different Kind*, whether *simple* or *complex*. Such is the Idea of *Man*, as compounded of Body and Spirit; of an *Electuary*, or other Medicine, compounded of different Ingredients; and of *Harmony*, which is made up of different Sounds united.

Q. What is a *Collective Idea*?

A. That which joins together many Ideas of the *same Kind*, and considers them in one View. Such is the Idea of an *Army*, which is a Collection of Men; of a *Town*, which is a Collection of Houses; of a *Nosegay*, which is a Collection of Flowers; of a *Grove*, which is a Collection of Trees, &c.—But this Distinction between *compound* and *collective* Ideas is not accurately observed, the former Epithet being frequently used instead of the latter.

Q. How

Q. How are Ideas distinguish'd according to their OBJECTS ?

A. Into Particular and Universal, Real and Imaginary.

Q. What is a Particular Idea ?

A. That which represents *one* Object only ; and this either indeterminately, as when we say *some Man, any Man, one Woman, another Woman, some Horse, another City, &c.* or else in a determinate Manner, as *William the Conqueror, this Field, that River, the City of London, &c.* — These Ideas, representing one particular determinate Thing, are also call'd Singular Ideas, whether they be simple, complex, or compound : And the Object of a particular Idea, as well as the Idea itself, is sometimes term'd an Individual.

Q. What is an Universal Idea ?

A. That which represents a common Nature agreeing to many particular

cular Things. Thus a *Man*, a *Tree*, a *Horse*, are call'd *universal Ideas*, because they agree with all Men, Trees, and Horses.

Q. Are not *universal Ideas* distinguished into two Sorts ?

A. Yes ; into *General* and *Special*.—A *general Idea*, or *Genus*, is one *common Nature* which includes several others. Thus *Animal* is a *Genus*, because it includes *Man*, *Horse*, *Elephant*, *Fly*, &c. which are also *common Natures*: And *Bird* is a *Genus*, as comprehending *Eagle*, *Crow*, *Sparrow*, *Lark*, &c.—A *special Idea*, or *Species*, is one *common Nature* agreeing to several *Individuals*. Thus *Man* is a *Species*, as agreeing to *William*, *Peter*, *John*, &c. and *City* is a *Species*, as agreeing to *London*, *Paris*, *Constantinople*, &c.—Hence it is easy to observe, that the same Idea may be sometimes a *Genus*, and sometimes a

Spe-

Species ; for *Bird* is a *Genus* if compared with *Eagle*, *Crow*, &c. but a *Species* with respect to *Animal* ; and *Animal* is a *Species* with respect to *Substance*.

Q. What is meant by *Real Ideas* ?

A. They are such as have *real Objects*, which either do or may exist, according to the present State and Nature of Things ; of which it is needless to give any Examples.

Q. What is meant by *Imaginary Ideas* ?

A. They are Ideas of Objects which never did nor ever will exist, according to the present Course of Nature. Such are those of a *Flying Horse*, a *Satyr*, a *Bee as big as an Elephant*, &c. These Ideas are also call'd *fantastical* or *chimerical*.

Q. How are Ideas distinguish'd with respect to their *QUALITIES* ?

A. Into

A. Into *Clear* or *Distinct*, and *Obscure* or *Confused*; into *Vulgar* and *Learned*; into *Perfect* and *Imperfect*; and into *True* and *False*.

Q. What is a *Clear* or *Distinct* Idea?

A. That which fully represents the Object to the Mind, so as plainly to distinguish it from every other Object.

Q. What is an *Obscure* or *Confused* Idea?

A. That which represents the Object either faintly, or so confounded and mingled with others, that it does not appear plain and distinct to the Mind. Thus when we view the Rainbow, we have a *clear* and *distinct* Idea of the Red, the Blue, and the Green, in the *Middle* of their several Arches; but the *Borders* of those Colours so run into one another, that the Eye cannot well distinguish them, and therefore

therefore their Ideas are obscure and confused.

Q. What is meant by *Vulgar* and *Learned* Ideas?

A. *Vulgar* Ideas represent Objects according to their most obvious and sensible Appearances : But *Learned* Ideas are framed by considering the Nature, Properties, Causes, and Effects of Things. Thus it is a *vulgar* Idea when we conceive the Rainbow to be a large Arch in the Clouds, made up of several Colours ; but when a Philosopher considers it as caused by the various Reflexions and Refractions of the Sun beams in Drops of falling Rain, this is a *learned* Idea.

Q. What is the Meaning of *Perfect* and *Imperfect* Ideas?

A. *Perfect* or *Adequate* Ideas are such as represent the *Whole* of the Objects to which they are referr'd. Thus all our *simple* Ideas, such as *Sweet*,

Sweet, Bitter, Black, White, &c. may be call'd *perfect*, because they are without Parts: And several of our *complex Ideas* are also *perfect*, as those of a *Square* or *Triangle*, all the Parts whereof are evident, and the Mind comprehends them compleatly.—*Imperfect* or *Inadequate Ideas* are but a *partial* or *incomplete Representation* of their Objects. Thus we have only an imperfect Idea of a *Figure of a thousand Sides*, of the *Powers of the Loadstone*, or of *Infinity*, which is ever growing, and can never be compleated.

Q. What is meant by *True* and *False Ideas*?

A. Ideas are *true* when they are conformable to the Objects, and represent them as they really are; otherwise they are *false*: As when every thing appears *yellow* to a Man in the

the Jaundice, or a *strait* Stick seems crooked in the Water.

C H A P. IV.

Of WORDS and TERMS, whereby our Ideas are express'd.

Q. YO^U have shewn how we acquire our Ideas, and have enumerated their various Kinds ; but how do we convey them to each other ?

A. By means of certain Sounds, or written Marks, which we call *Words* ; that is, by the Use of *Speech* or *Language*. But as Words are the Medium whereby we mutually receive and communicate our Knowledge, so they are often the Sources of Mistake and Error.

Q. How do Words lead us into Mistakes ?

A. Our

A. Our Mistakes are chiefly owing to the following Causes. 1. Because there is no natural Connexion or Relation between *Words* and the *Ideas* they are design'd to express. 2. Because *different simple Ideas* are often express'd by the *same Word*; as the Word *sweet* (for Instance) is applied to the Objects of *Tasting*, *Smelling*, and *Hearing*. 3. Because very *complex Ideas* are frequently express'd by *single Words*, which can never distinctly manifest all their Parts. And hence it happens, that one Man includes *more or less* in his *Idea* than another does, while he affixes the *same Word* to it; which occasions Debates and Confusion. 4. Because many Words are used in a Sense entirely different from what they had in the Language whence they are derived; as the Word *Spirit* originally signified *Air*, or *Breath*, which has now quite another

other Signification. 5. Because several Things are often denoted by one and the same Name; as *Shore* signifies the *Sea-Coast*, or a *Prop to support a Building*.—From these Considerations it appears, that to prevent our being led into Error whilst we are pursuing after Truth, it is necessary to regard well the *Use* and *Meaning* of *Words* and *Terms*, and to be acquainted with their various *Kinds*.

Q. Into how many Kinds are Words and Terms divided?

A. Logicians divide them into *Positive* and *Negative*, *Simple* and *Complex*, *Common* and *Proper*, *Abstract*, and *Concrete*, *Univocal* and *Equivocal*.

Q. Which are *Positive* and which *Negative* Terms?

A. *Positive* Terms have an *affirmative* Sense, and signify some *positive* Idea; as *Art*, *Prudence*, *Regular*, *Friendly*, *Pleasant*, &c.—*Negative* Terms

are quite the Reverse of the *positive* ones, having a *denying* Syllable or Particle join'd to them, either at the Beginning or End of the Word ; as *Artless*, *Imprudence*, *Irregular*, *Infinite*, *Unpleasant*, &c.—But such is the Imperfection of Language, that some *positive Terms* are made to signify *negative Ideas*, and some *negative Terms* imply *positive Ideas* ; so that we cannot certainly know whether an Idea is *positive* or *negative* by the Word that is used to express it.—*N. B.* In our Language two *negative Terms* are equal to one *positive* ; as *not immortal* signifies *mortal*.

Q. What is meant by *Simple* and *Complex Terms*?

A. A *simple Term* is one *Word* ; a *complex Term* is when *more Words* are used to signify one *Thing*. Thus, the *Founder of Rome* is a *complex Term*, but the *Words* ex^{cite} the *Idea* of *one Man*.

Man only, viz. *Romulus*. On the other hand, some Terms are *complex* in *Sense*, but not in *Words*; as a *Family*, an *Army*, a *Forest*: And so *Religion*, *Charity*, *Knavery*, *Loyalty*, and many more, are *simple* Terms, but include a Variety of Ideas. Other Terms are *complex* both in *Words* and *Sense*; as a *sharp Knife*, a *sweet Apple*, &c. which excite an Idea not only of the Things themselves, but also of their Qualities.

Q. What is the Meaning of *Common* and *Proper Words*?

A. *Common Words* or *Names* (which are also call'd *Appellatives*) are such as stand for *universal Ideas*, or a whole Rank of Beings, whether general or special. Thus *Man*, *Bird*, *Fish*, *City*, *River*, *Mountain*, are *common Names*; and so are *Sparrow*, *Raven*, *Salmon*, *Lobster*; for they all agree to many *Individuals*, and some of them to

many Species : But *Virgil*, *London*, the *Thames*, *Vesuvius*, are proper Names, because they belong to one particular Man, City, River, and Mountain.—Here we may observe, that a proper Name may in some Sense become common ; as *Cæsar* was the proper Name of *Julius* the first Roman Emperor, and became the common Name of the succeeding Emperors. So also a common Name is sometimes used as a proper one ; as when we say *the King*, meaning King *George*. And indeed any common Name is made proper by the Addition of some Term of a particular and determinate Meaning ; as *this House*, *that Garden*, *the present Emperor*, &c.

Q. What is meant by *Abstract* and *Concrete* Terms ?

A. *Abstract* Terms are those which express some *Mode* or *Quality*, consider'd

der'd separately, and without any Regard to its Subject ; as *Wisdom*, *Piety*, *Hardness*, *Whiteness*, *Happiness*.—Concrete Terms are those which signify some *Quality*, and at the same Time express or imply some *Subject* to which it belongs ; as *wise*, *pious*, *hard*, *white*, *happy* : But they are not always what Grammarians call *Adjectives*; for *Slave*, *Hypocrite*, *Philosopher*, and many other *Concretes* are *Substantives*, as well as *Slavery*, *Hypocrisy*, and *Philosophy*, which are *abstract* Terms that belong to them.

Q. What is meant by *Univocal* and *Equivocal* Terms ?

A. *Univocal* Terms are such as signify but *one Idea*, or at least but *one Sort of Thing* ; as *Book*, *Fish*, *House*, *Gold*, *Silver*, and all other Words, the bare Mention whereof excites a certain fix'd Idea, so that we have not the least Doubt about

their Meaning.—*Equivocal Terms* are those which signify two or more different Ideas, or different Sorts of Objects. Thus *Foot* is an equivocal Word, as signifying the *Foot of an Animal*, or a *Measure* of twelve Inches : *Post* is equivocal, being used for a *Piece of Timber*, or a *Messenger who carries Letters*. So *Grace*, *Church*, *Bitter*, *Sweet*, *Sharp*, and a Multitude of others, are equivocal or *ambiguous*, as signifying several different Things ; and the Use of such Words, with a Design to *puzzle* or *deceive*, is call'd *Equivocation*. These ambiguous Terms, which have several Meanings, are also call'd *Homonimous* ; as different Words, signifying the same Thing, are call'd *Synonimous*.

Q. Are there not various Kinds of *equivocal Words* ?

A. Yes, so many that it would be tedious to enumerate them all ; but some

some of the most remarkable and useful Distinctions among them are those which follow. 1. Some Words are *equivocal* in *Sound*, but not in *Writing*; as the *Rein* of a Bridle, the *Reign* of a King, and *Rain* that falls from the Clouds: Others in *Writing*, but not in *Sound*; as *Bowl* a Ball, and *Bowl* a Vessel, are written the same Way, but pronounced differently: Others, which are most properly call'd *equivocal*, are those that are written and pronounced alike, but have different Senses; as *Post* and *Foot* abovemention'd. 2. Words are *equivocal* in respect to the *Extent of their Meaning*, which are sometimes taken in a large and general Sense, and sometimes in a Sense more particular and restrain'd. Thus, strictly speaking, *Holland* is but one of the *United Provinces*; though in a large Sense it in-

cludes all the *Seven*, 3. Words are equivocal by being sometimes used in a *literal*, and sometimes in a *figurative Sense*; as when Man is said to *repent* or be *angry*, it is understood literally; but when spoken of God, the Expressions are figurative. 4. Some are equivocal on account of a *common* and *scientific Meaning*; as *Passion* vulgarly signifies *Anger*, but philosophically the *receiving any Action impressed*.—These are the principal Kinds of equivocal or ambiguous Words.

C H A P. V.

Rules relating to our Conceptions of Things ; with Directions for DEFINITION, DIVISION, and DISTRIBUTION.

Q. **B**Y what Rules are we to guide and regulate our Conceptions ?

A. 1. Conceive of Things *clearly* and *distinctly*, as they are in their own Natures. 2. Conceive of them *completely*, in all their *Parts*. 3. Conceive of them *comprehensively*, with regard to their *Properties* and *Relations*. 4. Conceive of Things *extensively*, in all their *Kinds*. 5. Conceive of Things *orderly*, or in a proper *Method*.

Q. What is necessary to be observ'd with respect to the FIRST Rule ?

A. In

A. In all Discourse or Argument proper *Definitions* are necessary, that every thing may be clearly and distinctly understood.

Q. What is meant by DEFINITION?

A. Definition is of two Kinds ; one of Names or Words, the other of Things.

Q. What is the Definition of a NAME?

A. It is the explaining and determining precisely *in what Sense we use a Word*, or what Object we mean by it ; which may be done in any Manner, so as to convey our Meaning sufficiently to another Person.

Q. What Directions are proper to be observ'd in the Definition of Names?

A. Principally the following. 1. Avoid making use of mere Words, which have no Ideas belonging to them, or

no settled and determinate Meaning. For what signifies talking of *Fate*, *Fortune*, *Perfection*, *Instinct*, &c. without we have some certain Idea first affix'd to these Words? Do not suppose the Nature of Things to be always as different as their Names. For the Words, *Herb*, *Sallad*, *Weed*, though they are different Names, are not really three different Species of Beings.

3. Do not think the Nature of two Things the same because they have the same Name. Thus Heat which we feel by being near the Fire, and the Cause of that Sensation in the Fire itself, are very different though the same Name is applied to both. 4. Use no ambiguous Words in your Definitions; for this may make your Candour and Ingenuity suspected. 5. Define your Words in the same Sense in which Mankind uses them, as near as possible; and in your Discourse keep close

close to your first Definitions, unless you give proper Notice of the Change.

Q. What is the Definition of a THING?

A. An Explanation of its *Nature*, including something which is *common* to it with other Things, and something that is *peculiar* to the Thing defin'd. Thus, if I would give a Definition of *Wine*, I say it is *Juice press'd from Grapes*.

Q. How is a Definition of any thing to be form'd?

A. By considering what is the *nearest Genus or general Nature* of the Thing to be defin'd, and then what is its *primary Attribute or Property* wherein it *differs* from all other Things that are most like it. Thus, in forming the above Definition, tho' *Wine* is a *Substance*, I do not make use of that Term, because it is a *very remote Genus*; nor do I call it

a *Liquid*, because that is still too remote; but I say it is a *Juice*, because that is its *nearest general Nature*, tho' common to it with many other Things. Having gone thus far, I am to consider what is its *primary Attribute* wherein its *specific Difference* consists; that is, wherein it differs from all other Juices. Now if I should say, it is the *Juice of a Fruit*, this Difference would be too general for it would not distinguish it from *Cyder*, *Perry*, &c. which are Juices of Fruits also: But when I say, it is a *Juice press'd from Grapes*, this expresses its *special Nature*, which distinguishes it from all others.—Therefore the general and special Nature join'd together, or (as Logicians call them) the *Genus* and the *Difference*, make up a *Definition*.

Q. Which are the chief Rules of a good Definition?

A. I.

A. 1. That it be *adequate* or *universal*; that is, it must agree to all the particular Species included under the Idea of the Thing defined. Thus, the *Juice of the Grape* agrees to all Wines, (properly so call'd) whether *Red, White, Spanish, French, &c.* 2. It must be *peculiar* to the Thing defin'd, and agree to *that alone*. So the *Juice of the Grape* agrees to no other Being but *Wine*. 3. It ought to be *clear* and *plain*, and consequently free from all ambiguous Words. 4. It should be *short*, but not so as to leave it obscure; and indeed the *Difference* of Things cannot always be express'd in a few Words, as consisting of several Attributes or Ideas. 5. A Definition of a *Thing* must not be express'd in mere *synonymous Words*; for that would not explain its *Nature*, and be no better than a Definition of the *Name*.

Q. Is every Thing capable of being exactly defin'd?

A. No; it is very difficult to define some Things accurately, and others cannot be defin'd at all. Where the Essences of Things approach near to each other so that their Limits cannot well be adjusted, it is difficult to define them; because we cannot tell under what *Species* to rank them, or how to determine their *specific Difference*. It is hard (for Instance) to define a *Batt*, which is between a Bird and a Beast; or a *Barge*, which is between a Boat and a Ship — *Being* and *Not-Being*, having no superior *Genus*, can never be defined; neither can *Individuals*, because either they have no *essential Differences* from other Individuals, or their Differences are not known to us; and therefore we can only describe them by their particular Circumstances. Lastly, we know

know so little of the *Essence* of the various Kinds of natural *Beings* or *Substances*, that our Definitions of them are only an Enumeration of their chief *Parts* or *Properties*, which best explain and distinguish them from other Things according to our Observation. Thus we should define *Silver* to be a *white hard Metal*, the finest and most ductible next to *Gold*, &c. A *Primrose* is a *yellowish Flower* consisting of several *small Leaves* of such a particular *Shape*, &c. But this Sort of Definition is call'd *imperfect*, or a *Description*; the *perfect* Definition being compos'd of the *specific Difference* added to the *general Nature* or *Genus*, as above observ'd.

Q. How do you explain your SECOND Rule, relating to a compleat Conception of Things?

A. To conceive of Things compleatly, we must take them as it were

to pieces, and consider all their Parts, separately. This Rule therefore only refers to *complex Ideas*, for *simple Ideas* have no Parts. Now all *Parts* imply some *Whole* to which they belong ; and our *whole Ideas* may be distinguish'd into two Kinds. 1. There is a *Mathematical or Integral Whole*, which is when all the Parts are distinct from each other, and may subsist apart. So the *Head, Limbs, and Trunk* are the *integral Parts* of a human Body : *Units* are the *integral Parts* of large Numbers : And the *Spring, Wheels, Balance, Dial-Plate, &c.* are the *integral Parts* of a Watch. An Enumeration of these Parts of an Idea is what Logicians call *Division* ; and when any of the Parts are still farther divided, it is call'd a *Sub-division*. 2. There is a *Logical or Universal Whole*, the Parts whereof were all the particular Ideas to which

the universal Nature extends: So a *Genus* is a *Whole*, as *Animal*; and the several *Species* are its *Parts*, as *Man*, *Beast*, *Bird*, &c. A *Species* is likewise a *Whole*, as *Horse*; and the *Individuals*, as *Trot*, *Ball*, *Dobbin*, &c. are the *Parts*. A proper Enumeration of these Parts of an Idea is call'd **DISTRIBUTION.**

Q. Which are the Rules relating to *Division*?

A. 1. *Each Part taken separately must be less than the Whole, but all together must be exactly equal to it.* To divide a *Tree* therefore into the *Trunk* and the *Leaves* would be an imperfect Division, since the Whole is not compleat without the *Root* and the *Branches*. 2. *In all Divisions begin with the larger and more immediate Parts of the Subject, and so proceed to the more minute and remote Parts.* For it would be very improper to divide a *King*,

a Kingdom first into *Streets* and *Fields*; but we must first begin with *Provinces* or *Counties*, and then those *Counties* may be divided into *Towns*, *Fields*, &c. and *Towns* into *Streets*. and *Lanes*. 3. *The Parts of a Division should be opposite, so as not to contain one another.* It would therefore be improper to divide an Animal into *Body*, *Head*, *Limbs*, and *Bones*, because *Bones* are included in all the other Parts. 4. *We ought not to run into many Subdivisions without Necessity.* 5. *We should divide our Subject according to the Design we have in View.* So a Printer divides a Book into *Sheets* and *Pages*; but a Logician considers it as divided into *Chapters*, *Sections*, *Propositions*, &c. In all Divisions the Nature of Things should be carefully observ'd. Thus Nature plainly leads us to divide a Tree into the *Root*, the *Trunk*, and *Branches*; but it would be unnatural

natural to divide it into the *upper Half* and the *lower Half*, since it would be hard to determine how much belong'd to the one and how much to the other.

Q. Which are the Rules relating to *Distribution*?

A. They are much the same with those applied to *Division*: For, 1. The *Parts of a Distribution taken together must contain the Whole*. So Mankind are justly distributed into *Male* and *Female*. 2. In *Distributions we must begin with the larger and more immediate Species or Ranks of Beings, and not with those which are more minute and remote*. Thus *Animal* would be improperly divided into *Sparrow, Dove, Trout, Flounder, Horse, Bear, &c.* whereas it should first be distributed into *Man, Beast, Bird, Fish, Insect*; and then Beast into *Horse, Bear, &c.* Bird into *Eagle, Sparrow, &c.*

&c. Fish into Trout, Flounder, &c. and Insect into Wasp, Butterfly, Caterpillar, &c. 3. The Parts of a Distribution should not contain or include one another. Thus Men may properly enough be distributed into Young, Old, and Middle-aged ; but not into Rich, Poor, and Learned, because rich Men may be learned, and so may the Poor. 4. Subdivisions should not be numerous without Necessity. 5. Each Subject should be distributed according to the special Design we have in View. Thus, in treating of Politics, Mankind may be distributed into the Rulers and the Ruled ; but, with respect to Religion, they are distinguish'd into Heathens, Mahometans, Jews, and Christians. 6. We should carefully follow Nature in all our Distributions.

*Fish,
Horse,
arrow,
&c.*

Q. What is the Meaning of your THIRD Rule, relating to a comprehensive Conception of Things.

A. As we obtain a *compleat Conception* of an Object by surveying it in all its Parts, so we obtain a *comprehensive Conception* of it by considering it in all its *Modes, Attributes, Properties, and Relations*. Indeed, it is neither necessary nor possible to run through *all* the Modes, Circumstances, and Relations of every Subject we take in hand; but a judicious Speaker or Writer will chuse those which are most necessary to his Design, either to explain, illustrate, or prove his Point.

Q. How are we to understand the **FOURTH Rule**, which directs us to conceive of Things *extensively*?

A. To have an *extensive Conception* of a Thing is to consider the various *Sorts* or *Kinds* of Beings to which the same Idea belongs, *i. e.* to search out the several *Species* or *Special Natures*, that are contain'd under a *Genus* or *General Nature*. Thus, if we
con-

conceive extensively of an *Animal*, we consider *Beasts*, *Birds*, *Fishes* and *Insects*, as well as *Men*, which are all included in that general Name. Such a Conception of Things enables us to make a proper *Distribution* of an *Universal Whole* into its various *Species* and *Individuals*, the Rules for which have been just now given.

Q. What is the Intention of the FIFTH Rule, to conceive of Things orderly?

A. This Rule is intended to prevent Confusion, either in the Mind of the Teacher or the Learner; for which Purpose our Ideas ought to be dispos'd in a *just* and *proper Method*, that may assist both the Understanding and the Memory: As Books in a well-order'd Library are dispos'd according to their Sizes and Subjects, so that any one of them is readily found by the Student. We might

here lay down Rules relating to *Method*, but that would be anticipating what belongs to the *Fourth Part of Logic*, wherein we shall speak of it more largely.



P A R T II.

Of JUDGMENT.

Q. **W**HAT is meant by JUDGMENT?

A. *Judgment* is that Operation of the Mind, whereby we compare two or more Ideas together, and either affirm or deny something concerning them, according as we find they agree or disagree with each other.

Q. Cannot the Mind then form a Judgment, without something be affirm'd or denied in *Words*?

A. Yes, the Mind may perceive the Agreement or Disagreement of Ideas; and accordingly assent or dissent within itself, though no Words are

are used: And this is properly call'd *Judgment*; for when any Judgment is express'd in Words, it is call'd a *Proposition*. In short, as *Ideas* are the Result of *Conception* or *Apprehension*, so *Propositions* are the Effects of *Judgment*.

C H A P. I.

Of the Nature of PROPOSITIONS in general, and the Parts whereof they are composed.

Q. **W**HAT is a *Proposition*?

A. It is a Sentence wherein two or more Ideas or Terms are join'd or disjoin'd by one Affirmation or Negation; that is, wherein something is affirm'd or denied: As, *Men are mortal*: *Poverty is no Vice*: *Compleat Happiness is not attainable on Earth*.

Q. What

Q. What are the *Parts* which constitute a Proposition?

A. The *Subject*, the *Predicate*, and the *Copula*.

Q. What is the *Subject* of a Proposition?

A. It is that of which any thing is affirm'd or denied. So *Men*, *Poverty*, *compleat Happiness*, are the Subjects of the foregoing Propositions.

Q. What is the *Predicate*?

A. It is that which is affirm'd or denied of the Subject. So *mortal*, *Vice*, *attainable on Earth*, are Predicates in the above Examples.

Q. What is the *Copula* of a Proposition?

A. It is the Word or Words whereby the Affirmation or Negation is express'd, and the Subject and Predicate are connected. These are *am*, *art*, *is*, *are*, *can*, *may*, &c. or *am not*, *art not*, *is not*, *are not*, and many others

others of the like Nature.—*N. B.* The *Subject* and *Predicate* are call'd the *Matter*, and the *Copula* is call'd the *Form* of a Proposition.

Q. Are all these Parts *distinctly express'd* in every Proposition?

A. No, but they are all implicitly contain'd in it. Thus, *I write* is a compleat Proposition, though the *Copula* seems to be wanting; for it is the same as *I am writing*. So in the Proposition *Rome is*, the Word *is* includes both the *Copula* and the *Predicate*; being the same as *Rome is in being*.—And here it may be proper to observe, that the several Parts of a Proposition are not always to be known by the Order in which the Words are placed, but by duly considering the Sense of them, and the Design of the Writer or Speaker.

C H A P. II.

Of the various Kinds of PROPOSITIONS.

Q. INTO how many Kinds are Propositions usually distinguish'd?

A. They are distributed into various Kinds, according to their *Subject*, *Copula*, and *Predicate*; or with respect to their *Nature*, *Sense*, and *Evidence*.

Q. How are they distinguish'd in regard to their SUBJECT?

A. Into four Kinds, *viz.* 1. *Universal*, when the Subject is taken in its whole Extent; which Universality is commonly express'd by the Words *all*, *every*, *no*, *none*, and the like; as, *All Creatures had a Beginning*: *No Man is free from Failings*. 2. *Particular*, when the Subject is not taken in its whole Extent, but is limited by a Word denoting Particularity, as *some*,

some, many, few, &c. as when we say, *Some Men are blind: Many Opinions are erroneous.* 3. *Singular*, which is when a Proposition only relates to one individual Person or Thing; as *Solomon was a wise Man: This Day is very fine.* But this Sort of Propositions may justly be included under the general Name of *Universals*, because the Subject is taken in its full Extent; for being an Individual, it can extend to that only. 4. *Indefinite*, which is when a Subject has no Note either of Universality or Particularity prefix'd to it, but yet is general in its Nature; as, *Angels are immortal: Stones have no Sensation.* But these indefinite Propositions (especially when they describe the Nature of Things) are also to be reckon'd *Universals*.

Q. How are Propositions distinguish'd with respect to their COPULA?

A. Into

A. Into *Affirmative* and *Negative*.
 In *affirmative* Propositions something is positively asserted of the Subject, and is join'd to it by the Words *is*, *are*, &c. as, *God is a Spirit*. In *negative* Propositions something is denied of the Subject, and is therefore disjoin'd, from it by the Particles *is not*, *are not*, &c. as, *Man is not a Stone*, —Here it is natural to observe, that the Sense of many Propositions may be plain and easy, though it may be difficult to say whether they should be rank'd under the Names of *negative* or *affirmative*; nor is it worth while to wrangle about Matters of so little Importance. The Distinction indeed is allowable and useful; but it seems to me, that all Propositions may in some Sense be call'd *affirmative*; for all affirm that something *is*, or *is not*; or, in other Words, they affirm the Agreement or Disagreement of Ideas.

—Let

—Let the Scholar likewise take notice, that in our Language two Negatives in one Sentence make an Affirmative; for if we say, *No Man is not mortal*, it is the same as if we said, *Every Man is mortal*. But in Greek, and very often in French, two Negatives only deny more strongly.

Q. How are Propositions distinguish'd with respect to their PREDICATE?

A. Into *Pure* and *Modal*. A *pure* Proposition merely and simply expresses that the Predicate is connected with the Subject; as, *A Globe is round*. A *modal* Proposition shews also the Way and Manner wherein the Predicate and the Subject are connected. These *Modes* of Connection are usually reckon'd four, viz. 1. *Necessity*; as, *It is necessary that a Globe should be round*. 2. *Contingency*; as, *A Globe may be made of Brass or Wood*, for this

is an indifferent or contingent Thing.

3. Possibility ; as, *It is possible a Globe may be made of Water.* 4. Impossibility ; as, *It is impossible that a Globe should be square.*

Q. Are there no other Modes of connecting the Predicate with the Subject ?

A. Yes, many more ; for to those above-mention'd, which are only *natural*, might be added *moral* and *civil* Modes, such as *Lawfulness* and *Unlawfulness*, *Conveniency* and *Inconveniency*, &c. So also, *it is probable*, *it is improbable*, *it is certain*, *it is doubtful*, *it is said*, *it is written*, and various other Modes of speaking whereby a Predicate and a Subject are connected, will form other Kinds of *modal Propositions*.

Q. How are Propositions distributed with regard to their NATURE ?

A. Into Single and Compound.

E

Q. What

Q. What is a Single Proposition?

A. That which has but *one* Subject, and *one* Predicate. If these consist only of *simple Terms*, the Proposition is call'd *simple*, as, *Sinners are miserable*: *Virtue is desirable*. But if the Subject or Predicate is made up of *complex Terms*, the Proposition is also call'd *complex*; as, *Impenitent Sinners are miserable*: *Virtue is desirable more than Gold*.

Q. What is a Compound Proposition?

A. That which has *two or more Subjects or Predicates, or both, and therefore contains two or more Propositions, either plainly express'd or implied*. — The first Sort of compound Propositions, *i. e.* wherein the Composition is *express'd and evident*, are distinguish'd into *Copulative*, *Disjunctive*, *Conditional*, *Causal*, *Relative*, and *Discretive*; of which take the following

following Examples. 1. Those are *copulative*, whose Subjects and Predicates are connected by affirmative or negative Conjunctions ; as, *Riches and Honours are Snares* : *Neither Gold nor Diamonds can save us from Death*. These are evidently *compound*, for each of them may be resolv'd into two Propositions, viz. *Riches are Snares*, and *Honours are Snares* : *Gold cannot save us*, &c. *Diamonds cannot save us*, &c. 2. In *disjunctive* Propositions the Parts are opposed to one another by disjunctive Particles ; as, *It is either Day or Night*. 3. *Conditional* or *hypothetical* Propositions have their Parts united by a conditional Particle ; as, *If the Sun shines, it is Day*. The first Part of such Propositions, wherein the Condition lies, is call'd the *Antecedent*, and the other the *Consequent*. 4. *Causal* Propositions are so denominated from the

causal Particles by which they are connected ; as, *We are dependent, because we are Creatures.* Hither some refer those Propositions call'd *reduuplicative* ; such as, *Men, as Men, are rational* ; that is, *because they are Men.*

5. *Relative Propositions* (which are near a-kin to *conditional ones*) express a Relation or Comparison of one Thing to another ; as, *Where the Treasure is, there will the Heart be.*

6. *Discretive Propositions* are those wherein various Judgments are made, denoted by the Particles *but, though, &c.* as *A good Boy may play, but should not forget his Task : Job was patient, though his Affliction was great.* — The second Sort of *compound Propositions*, where the Composition is not so evident, are chiefly *Exclusives* and *Exceptives*. The former are so denominated from the exclusive Words, *alone, only, &c.* as, *God alone is eternal.* The latter

latter are known by the exceptive Words, *beside*, *unless*, *none but*, &c, as, *No Animal beside Man, is rational*. These seem to be single Propositions, but a little Consideration will shew that they contain *two* at least. The first (for Instance) may be resolv'd into these : *God is eternal*; and, *No other Being is so* — I might add more Distinctions under this Head, and spend Time in shewing whereon the Truth of these several Propositions depends, as also how they are to be opposed or contradicted, but I think this would be of little Service, since a moderate Share of common Sense will be sufficient for these Purposes, without the Formality of Rules.

Q. How are Propositions distinguished with regard to their SENSE ?

A. According to their *Sense* or *Signification*, they are distinguish'd into *True* and *False*. A *true* Proposition

represents Things as they really are in themselves ; as, *Birds have Wings : Brutes are not insensible Machines.* A *false Proposition* represents Things otherwise than they really are ; as, *Birds have no Wings : Brutes are insensible.*

Q. Is there any *certain Mark* whereby we can distinguish *Truth* from *Falshood* ?

A. Yes, the *Criterion* or distinguishing *Mark* of *Truth* is *EVIDENCE* ; that is, a clear and distinct *Perception of the Agreement or Disagreement of Ideas* to one another : For since we cannot with-hold our Assent when the Evidence is plain and strong, we should be necessarily led into Error if complete Evidence could be found in Propositions that are false ; but it would be impious to suppose, that the GOD of Truth and Goodness

ness would ever oblige his Creatures to be so deceiv'd.

Q. How are Propositions distinguish'd with respect to their E V I - D E N C E ?

A. According to their different Degrees of Evidence they are distinguish'd into *Certain* and *Doubtful*.

Q. What is a *certain* Proposition.

A. That wherein the Agreement or Disagreement of the Ideas appears so plainly to the Mind, that we cannot forbear assenting to it ; as, *The Whole is greater than a Part : Two and Two make Four : Every Circle has a Center.* Propositions of this Kind make what we call *Knowledge*.

Q. What is a *doubtful* Proposition ?

A. That whose Evidence is not so clear and strong as to force the Assent of the Mind, but permits us to suspend our Belief at Pleasure ; as, *The*

Moon is inhabited : The World will be destroy'd in less than a thousand Years. Such uncertain Propositions are what we call *Opinions*.

Q. Does not this last Sort of Propositions admit of a farther Distinction?

A. Yes, they are distinguish'd into *Probable* and *Improbable*. We call that a *probable* Opinion or Proposition, when the Evidence of it is greater than the Evidence of the contrary : When the Evidence or Arguments are stronger on the contrary Side, we call it *improbable* : But if the Arguments on both Sides appear equally strong, we commonly call it *doubtful*. And in general all Propositions are *doubtful* wherein we can perceive no sufficient Marks either of Truth or Falshood : In which Case the Mind ought to suspend its Assent, till superior Evidence on one Side or other

other incline the Balance of the Judgment.

Q. How many Kinds of Evidence are there ?

A. Six, *viz.* *Sense*, *Consciousness*, *Intelligence*, *Reason*, *Faith*, and *Inspiration*; on one or more of which all Propositions are grounded.

Q. How do you explain these several Kinds of Evidence ?

A. 1. The first Kind is that which arises from the Dictates of our SENSES, on which are built such Propositions as these : *Grass is green* : *Sugar is sweet* : *Hunger is painful*, &c. and these may be call'd sensible Propositions. 2. Many Propositions are built on an inward CONSCIOUSNESS, or spiritual Sensation of what passes in the Mind ; as, *Long Meditation on one thing is tiresome* : *Fear is a troublesome Passion* : *I am desirous of Knowledge*, &c. These Propositions are not distinguish'd

stinguisht'd (that I know of) by any particular Name. 3. INTELLIGENCE relates to *self-evident* Propositions, or those Principles of Truth which are wrought (as it were) into the very Nature and Frame of our Minds, and to which we necessarily assent as soon as the Terms are understood; as, *No Effect is produced without a Cause: A Part is less than the Whole, &c.* These are call'd *Axioms, Maxims, or first Principles*, being the very Foundations on which all our Reasonings are built. 4. When one Truth is justly inferred or drawn from others, this is the Evidence of REASONING; as when I see a Watch, I conclude, *Some Artist made it;* when I survey the Heavens and the Earth, I infer, *There is a God who created them.* Propositions built on this Kind of Evidence are call'd *Conclusions, or rational Truths;* and the Knowledge we thus acquire

acquire is properly call'd *Science*. 5. The Evidence of FAITH is that which is derived from the Testimony of others. By this we know that *there is such a Country as Egypt*, that *there was such a City as Troy*, and *such a Poet as Homer*. This, in short, makes a great Part of our Knowledge, there being ten thousand things which we believe upon the Authority of those who have spoken or written about them ; and as these Persons are many or few, and of more or less Wisdom and Credit, so our Faith is stronger or weaker, and the Proposition believed is either certain or doubtful ; but in Matters of Faith a very great Probability is call'd a *moral Certainty*. When we believe any thing upon the Word of *Man*, it is call'd *Human Faith* ; but when we believe because *God* has reveal'd it, that is *Divine*

Divine Faith ; and the infallible Assurance arising from such Evidence is call'd *supernatural Certainty*. 6. Another sort of Evidence, distinct from all the former, is INSPIRATION, or a convincing and indubitable Impression of any Truth made upon the Mind by God himself. Propositions built on such Evidence are call'd *inspired Truths*. This is *Divine Revelation* in the first and highest Sense, being the Dictates of the Holy Spirit in an immediate Manner.

C H A P. III.

*Of the OPPOSITION and CONVERSION
of Propositions.*

Q. **W**HAT is farther to be observ'd relating to *Propositions* ?

A. It

A. It is proper to take Notice, that the Distinction of Propositions into *universal* and *particular* is said to be according to their *Quantity*; but when they are distinguish'd into *affirmative* and *negative*, this is said to be according to their *Quality*. With respect to both Quantity and Quality they are distinguish'd into four Kinds, which Logicians denote by the Vowels A, E, I, O, thus :

A	denotes a	Universal Affirmative.
E		Universal Negative.
I		Particular Affirmative.
O		Particular Negative.

Of these several Forms the following Propositions are Examples :

- A All Men are mortal.
- E No Men are mortal.
- I Some Men are mortal.
- O Some Men are not mortal.

Q. Do

Q. Do not Logicians speak of the *Opposition* and *Conversion* of Propositions?

A. Yes, they have said a great deal more than is worth repeating here; but it seems proper to explain briefly what they mean by *opposite* and *convertible* Propositions.

Q. What Propositions are said to be *opposite*?

A. When two Propositions have the same Subject and the same Predicate, and what is denied in one is affirm'd in the other, either in Whole or in Part, they are said to be *opposite*.

Q. Are there not several Species of this Opposition?

A. Yes; if the two Propositions are opposite both in Quantity and Quality, they are call'd *Contradictory*; as,

A All Men are mortal.

O Some Men are not mortal.

These

These contradictory Propositions can never be both true, or both false, at the same Time.

If two *Universals* differ in Quality, they are call'd *Contraries*; as,

A *All Men are mortal.*

E *No Men are mortal.*

These cannot be both true together, but may be both false.

Two *Particular* Propositions, opposite in Quality, are call'd *Subcontraries*; as,

I *Some Men are mortal.*

O *Some Men are not mortal.*

These may be both true, but cannot be both false.

Propositions which differ only in Quantity are call'd *Subalterns*; but these are not properly *opposite*, because the particular Proposition is always included

included in the universal one ; as,

A *All Men are mortal.*

I *Some Men are mortal.*

Or thus,

E *No Men are mortal.*

O *Some Men are not mortal.*

The Properties of these Propositions are, 1. If the universal one be true, the particular one will be true also, but not on the contrary. 2. If the particular Proposition be false, the universal will be so too, but not the contrary. 3. They may be sometimes both true, and sometimes both false.

Q. What is meant by the *Conversion* of Propositions ?

A. This is when the Subject and Predicate of a Proposition may change their Places, and yet the Truth be preserv'd ; which may always be done

in *Universal Negatives and Particular Affirmatives*; as,

E { *No Virtue is Vice,*
may be converted,
No Vice is Virtue.

Here we see the Subject of the former Proposition is made the Predicate of the latter, and the Predicate the Subject, yet both are equally true. So likewise,

I { *Some Soldiers are Cowards,*
may be converted,
Some Cowards are Soldiers.

To say much more upon this Head would be spending Time without any real Advantage, as it would be trifling about a *Form of Words*, rather than discoursing about the *Matter*. But it may be observ'd, that there are some Propositions which may be

always converted with Truth, by reason of the *Ideas* or *Matter* whereof they are composed. This is the Case in Propositions whose Predicate is a true *Definition* of the Subject, or the *Difference* of it; or the *highest Degree* of any Property or Quality; or, in short, whenever the Subject and Predicate are exactly of the *same Extent* or *Comprehension*: As, *A Triangle is a Figure composed of three Sides*; and *a Figure composed of three Sides is a Triangle*: *Religion is the truest Wisdom*; and, *The truest Wisdom is Religion*. Adam was the first Man; and, *The first Man was Adam*. Such Propositions as these are properly convertible, and are called *reciprocal Propositions*.

C H A P. IV.

*Of PREJUDICES, or the Springs of
False Judgment.*

Q. HAVE you any thing more to add concerning *Propositions*?

A. No; enough has been said concerning Propositions in themselves consider'd: But before I proceed to the Third Part of *Logic*, I shall endeavour to point out the chief *Springs and Causes of our Mistakes in judging of Things* and to lay down some *Rules* to avoid them. Our *rash Judgments* or *Mistakes* are call'd *PREJUDICES*, and so are the *Springs* of them; of which there is a vast Variety attends Mankind in every Age and Condition of Life; and they are so interwoven with each other, as well as with the Powers of Human Nature, that it is sometimes difficult to make a proper

Distinction between them : But for the Sake of Method they may be reduced to the following Heads, *viz.* Prejudices arising from *Things*, from *Words*, from *Ourselves*, and from other *Persons*.

Q. Which are the Prejudices arising from *THINGS* ?

A. 1. *The Obscurity of some Truths, and the Difficulty of discovering them*, is one Source of false Judgments. This Sort of Prejudice, as well as most others, is cured by Patience and Diligence in our Enquiries, and by suspending our Judgment, till we have sufficient Evidence of the Truth. 2. *The outside Appearance of Things and Persons* frequently leads us into Mistakes. But this Prejudice is remov'd by an Acquaintance with the World, and observing that *Things are sometimes better and sometimes worse than they outwardly appear*. A grey Beard is

not

not a certain Sign of Wisdom; and a rough Diamond, though worth an immense Sum, may seem to us of no Value at all. 3. *A Mixture of different Qualities in the same Thing* is another Spring of rash and mistaken Judgment; for we are very apt to judge of the whole Object according to that Quality which makes the first or the strongest Impression upon us, without considering any of the rest. This Sort of Prejudice is cured by learning to make just Distinctions, and not to judge in the Lump, either of Men or Things. 4. *The different Lights in which a Thing is placed, and the different Views in which it appears to us,* often occasions us to form wrong Judgments concerning it. To correct which Prejudice we should view a Thing on all Sides, and compare its several Appearances with one another, before we fully determine

our Opinion. 5. *The casual Association of many of our Ideas* is another Source of rash Judgment and Mistake: As a Child that has drank a bitter Potion retains a bitter Idea of the Cup that held it, and is not easily persuad-ed to drink out of it again. Many Prejudices of this Kind we imbibe in our Youth, to remove which we must endeavour to separate those Ideas which have no natural and necessary Connection, but have been join'd together only by Fancy, Chance, or Custom.

Q. What Prejudices arise from WORDS?

A. 1. We are led into several Mistakes by *insignificant*, *equivocal*, and *synonymous* Words; to avoid which let the Reader carefully observe what has been said in *Chap. IV.* of the First Part of this Treatise, and in *Chap. V.* concerning the *Definition of Names.*

Names. 2. *Words join'd in Speech, and composing a Discourse,* are apt to lead us into Mistake two Ways. On the one hand, when a Man writes or speaks much to the Purpose, but has not a good Style, or an engaging Manner of Expression, we frequently despise an excellent Discourse, and overlook the wisest and the justest Sentiments. On the other hand, we are often charm'd into Error by a Man of Eloquence, whose Art conceals or obscures the Truth, and places Falshood in a pleasing Light. To secure ourselves against these Dangers, we must learn to distinguish between Language and Ideas, and to judge of Things in their own Natures, and in their just Relation to one another.

Q. Which are the Prejudices arising from OURSELVES?

A. 1. *The Prejudices of Infancy which are derived from the Weakness*

of our Reason and Incapacity to judge rightly of Things in our Childhood. Thus Boys are apt to think Learning an unpleasant Thing, because perhaps they have been whipt at School; and to look upon those as their best Friends who beg them a Holiday, or screen them from Correction when they have done amiss. The Way to get rid of these Prejudicēs is to re-examine the Opinions framed in our tender Years, when our Reason is strong and mature. 2. The *Prejudices of Sense*, or the false Informations of Things we receive from our Senses, are another Spring of rash Judgment and Mistake. Thus many People suppose the Sun and Moon to be flat Bodies, and much about the same Bigness, because they appear so to the Eye; and because we do not feel the Air press heavy upon us, we are inclined to think it has no Weight.

Such

Such Prejudices as these remain with the Generality of Mankind, 'till they are cured by Learning and Philosophy. 3. Many false Judgments take their Rise from our *Imagination*, or the *Dictates of Fancy*. Some Persons take for Truth whatever is strongly impress'd upon the Imagination ; and if they fancy (for Instance) this or that particular *Number* more fortunate than the rest, they will chuse a Lottery-Ticket accordingly, and think themselves sure of Success. To prevent such Deceptions as these, we must take care to bridle the Extravagancies of *Fancy*, to set that unruly Faculty aside in our Enquiries after Truth, and to let calm *Reason* determine our Opinions. 4. From the various *Passions or Affections of the Mind* arise innumerable Prejudices. *Love* makes even Blemishes appear as Beauties ; *Fear* multiplies our Dangers ;

gers ; *Envvy.* represents our Neighbour's Condition better than it is ; and to *Despair* the very least Difficulty seems unsurmountable. For these Prejudices the best Remedy is to keep a continual Watch over our Passions, and not to form our Judgments when the Affections are warmly engaged, but when the Mind is perfectly serene and compos'd. 5. The *Fondness we have for SELF, and for Persons and Things that have Relation to ourselves,* is another great Spring of false Judgments. The *Laplander*, amidst his Ice and Snows, is as fond of his native Country as he who is born amongst the Gardens of *Italy*. Our *Kindred*, our *Party*, our *Opinions*, our very *Names*, seem to have something peculiarly valuable in them, and we cannot bear that others should think meanly of them. In a Word, the Prejudices of this Kind stick so closely to our Natures, and have

have such a pernicious Influence on our Understandings, that we cannot too much guard against them in our Searches after Truth, and in forming our Judgment of what is Right and Wrong. 6. The *peculiar Tempers and Humours of the Mind* have an Influence upon Mens Judgments, and are the Occasion of frequent Mistakes. Some are so *easy* and *credulous*, as to believe every thing that has the least Shadow of Evidence ; whilst others are led by a *Spirit of Contradiction* to oppose every thing that is advanced either in Writing or Conversation. Some are always *positive*, others always *doubting*, and others perpetually *changing* one Opinion for another. These Tempers (and more that might be mention'd) are very injurious to a right Judgment of Things ; but may be reliev'd by Patience in Study, and a diligent and honest Attention in the Search

Search of Truth. 7. *A Dulness of Perception, a Defect of Memory, a Narrowness of Mind,* and several other Weaknesses belonging to Human Nature, are the Causes of Mistakes and Inconsistencies in Judgment; nor can we expect to be quite free from Errors and Imperfections in the present Life.

Q. Which are the Prejudices arising from OTHER PERSONS ?

A. i The *Prejudices of Education,* which we imbibe from our Nurses, from unskilful Teachers, from our School-fellows, from Servants, or any other Persons with whom we are conversant in our younger Years. It is then we are taught that there are Hobgoblins in the Dark, that the Screeching of an Owl presages Death in a Family or Neighbourhood, that such and such Days are lucky or unlucky, and a thousand such ridiculous Stories,

Stories, which have too lasting an Influence on the weaker Part of Mankind. We take our *Religion* from our Parents and Tutors, and Millions are born, and live, and die in the same Faith, without examining any one Article, or being able to give any other Reason for it, than that they were taught and believed so from their Infancy. These Prejudices are to be cured by bringing the Principles of our Youth to the Test of calm and severe Reason when we come to Years of Maturity. 2. Another sort of Prejudice arises from the *Custom or Fashion of those amongst whom we live.* Our Cookery, our Dress, our civil and religious Forms and Practices, are all regulated by Custom; and what appears elegant, polite, and decent in one Country, is awkward and ridiculous in another. To remove Prejudices of this Kind it is of excellent Use

Use to travel, or to read the Travels of other Men and the History of past Ages ; and whenever we pass a Judgment concerning the Nature of Things, let us remember that Truth and Reason are invariable, and does not change with Fashion or Custom.

3. The *Authority of Men* is the Spring of another Kind of Prejudices. We very often pay an unreasonableness of Differencē to the Authority of the *Ancients*, and many impertinent Trifles are reverenced for no other Reason but because they bear the Mark of *Antiquity*. A Writer or Preacher of a great Name draws a Multitude of Followers into his own Mistakes ; the poor Man often believes as his wealthy Neighbour does, and the Opinion of the 'Squire is follow'd by half the Parish. But to remove these Prejudices let us remember, that no Man, of whatever Rank or Character, has

any

any just Pretence to sway the Judgment of others by his own Authority ; and that Riches, Honours, Titles, and Reputation, are not always accompanied with Truth and Wisdom.

4. The Prejudices arising from the *Manner of Proposal* are near a-kin to those of Authority. Some Persons readily believe what another dictates with a *positive Air* and a great Assurance : Others quickly swallow any Doctrine when it is proposed with all the *Airs of Piety*, and solemn Appeals and Protestations. Some are frightened into the Belief of particular Doctrines, because a Man of great Name or Character pronounces the contrary Sentiments *heretical* and *damnable* ; whilst others are led into Error by a *soft Address*, and the engaging Methods of *Persuasion* and *Kindness*. The Way to avoid such Mistakes

Mistakes as these is to distinguish well between the *Substance of any Doctrine*, and the *Manner* in which it is *proposed, attacked, or defended*; and not to yield our Assent to any thing but the convincing Evidence of Truth.

Having thus pointed out many of the numberless Prejudices that attend Mankind, and the Means by which they may be avoided or removed, I shall conclude this Part of Logic with some general Directions to assist us in forming a *true Judgment* of Things.

C H A P. V.

*General Directions for JUDGING
aright.*

Q. **W**HICH are the best *Rules* Opin to direct us in forming our it sh *Judgment*? and

A. Some

A. Some Hints for this Purpose have been occasionally dropt already ; but it will not be a needless Repetition to collect them in this Place, and exhibit at one View such general Directions as are proper to assist us in judging rightly. A great Number might be framed that wou'd contribute to this End, but the most useful are those which follow.

DIRECTION I. *When we are searching after Truth, we should bring all our old Opinions to a fresh Examination, enquire into the Ground of them, and cast off those Judgments which appear to have been form'd without sufficient Evidence.* This indeed cannot be done all at once, and few People have either Time or Capacity to take such a Review of their Opinions ; but so far as we are able it should be done by prudent Steps and Degrees, till our Principles are

reform'd, or at least establish'd upon
juster Foundations.

DIRECT. II. *We should endeavour to have clear, complete, comprehensive extensive, and orderly Ideas of those Objects upon which we pass any Judgment, so far as we have Occasion to judge concerning them, and as our imperfect Knowledge of Things will admit.* This Direction is not to be strictly observ'd in Matters of Testimony, wherein it is not absolutely necessary to have clear and distinct Ideas of what is proposed to our Belief, provided we have sufficient Evidence of the Credibility of the Proposer.

DIRECT. III. *Compare the Ideas of a Proposition with the utmost Attention, and observe how far they agree, and wherein they differ.* But in making this Comparison between the Ideas of the Subject and the Predicate, take heed

heed that you neither add to nor diminish them.

DIRECT. IV. Search diligently and honestly for Evidence of Truth, and be ready to receive it on which Side soever it appears. Take great Care that your Wishes or Inclinations do not pervert your Judgment.

DIRECT. V. Suspend your Judgment, and neither affirm nor deny without sufficient Evidence. It is more particularly necessary to observe this Direction, when the Propositions to be examin'd are supported by Education, Authority, Interest, or any other powerful Prejudice.

DIRECT. IV. Judge of every Proposition by the proper Mediums or Means whereby its Evidence is to be obtained. That is, if we judge of Sounds, Colours, or any other Objects of Sense, we must do it by the Use of our Sen-

ses: If we judge of the Nature of Spirits, their Powers and Perceptions, we must apply to our *Consciousness* of what passes within our own Mind: If we judge of Matters done in past Ages, or in distant Countries, we must have Recourse to the *Testimony* of others.

DIRECT. VII. We should have some general Principles of Truth settled in our Minds, that they may always be ready to assist us in forming our Judgments of other Things whose Evidence is less obvious.

DIRECT. VIII. The Degrees of our Assent should always bear an exact Proportion to the different Degrees of Evidence. This will secure us from many Mistakes both in Speculation and Practice.

DIRECT. IX. Our Minds should be always open to receive the Truth; nor

nor should we ever think ourselves too wise to be instructed. Let us part with the oldest and most favourite Opinions for the sake of Truth, and remember that our Knowledge is always capable of Improvement.



P A R T III.

Of REASONING.

QWHAT is meant by REAS-
ONING, which is the third
Part of *Logic*?

A. It has been shewn that the *first*
Operation of the Mind is PERCEP-
TION, whereby our Ideas are fram'd;
and that the *second* is JUDGMENT,
which joins or disjoins our Ideas, and
forms a *Proposition*. We now come
to the *third* Work of the Mind, call'd
REASONING or *Argumentation*, where-
by several Propositions are join'd to-
gether, to form an *Argument*, or *Syllo-
gism*.

C H A P.

C H A P. I.

*Of the Nature of a SYLLOGISM, and
the Parts of which it is composed.*

Q. **W**HAT is a Syllogism?

A. It is an Argument, or Form of Reasoning, whereby we infer something that is less known from Truths which are more evident. Or it is an Argument consisting of three Propositions, disposed in such a Manner, as that the last is necessarily inferred from the two former ; so that if the first and second Propositions be granted, the Conclusion must be granted also. This will easily be understood by the following Example :

Our Creator must be worshipped.

God is our Creator.

Therefore God must be worshipped.

H 4

Q. What

Q. What is to be consider'd in the Constitution of a Syllogism?

A. The *Matter* and the *Form*.

Q. What is meant by the **MATTER** of a Syllogism?

A. The *Matter* is the *three Propositions* of which it is composed; and these are made up of *three Terms* or Ideas. The Terms are call'd the *remote Matter*, and the Propositions the *immediate Matter* of a Syllogism.

Q. What are the Names of the several *Terms*?

A. They are call'd the *Major*, the *Minor*, and the *Middle*. The *Major* or *Greater Term* is the *Predicate* of the Conclusion; the *Minor* or *Lesser Term* is the *Subject*; and these are call'd *Extremes*. The *Middle Term* is one chosen at pleasure, and so disposed in two Propositions, as to shew the Agreement or Disagreement between the *Major* and *Minor Terms* in the

the Conclusion ; and therefore the Middle Term is sometimes call'd the Argument.

Q. What are the Names of the Propositions in a Syllogism ?

A. The first is usually call'd the Major, wherein the Middle Term is connected with the Predicate of the Conclusion : The second is call'd the Minor, (and sometimes the *Assumption*) wherein the Subject of the Conclusion is connected with the Middle Term. These Propositions have the Name of Premisses ; and the third, which is drawn from them, is the Conclusion.

Q. What is the FORM of a Syllogism ?

A. It is the framing and disposing the Premisses justly, and from thence drawing a regular Conclusion or Inference. This Inference is generally express'd by the Particle *Therefore*, or the Latin Word *Ergo*, (which is of the

the same Signification) when the Argument is form'd according to the Rules of Art: But in common Discourse or Writing, the Particles *for*, *because*, &c. shew the Act of Reasoning, or inferring one thing from another, as well as *then*; and *therefore*; and when such Words are used, a Syllogism is express'd or implied, though perhaps the three Propositions are not disposed in a regular Form.

C H A P. II.

Of the various Kinds of SYLLOGISMS.

Q. **I**NTO how many Kinds are Syllogisms distinguish'd?

A. They are distinguish'd into several Kinds, either according to the Question to be proved, their Nature and

and *Composition*, or the *Middle Term* which is used to prove the Question.

Q. How are they distinguish'd in respect of the *QUESTION* to be prov'd ?

A. Into *Universal Affirmative*, *Universal Negative*, *Particular Affirmative*, and *Particular Negative*. This is sometimes call'd a Division of Syllogisms according to the *Conclusion*; for there may be so many Sorts of Conclusions, denoted by the Letters A, E, I, O, as may be seen in *Chap. III.* of the Second Part of this Treatise.

Q. How are Syllogisms distinguish'd with respect to their *NATURE* and *COMPOSITION* ?

A. Into *Single* and *Compound*. A *Single* Syllogism is made up of three Propositions: A *Compound* Syllogism contains more than three, and may
be

be form'd into two or more Syllogisms.

Q. Are not *Single Syllogisms* subdivided into several Sorts?

A. Yes, into *Simple, Complex, and Conjunctive.*

Q. What is a *Simple Syllogism*?

A. Those properly call'd *Simple Syllogisms* are composed of three plain, single, or *categorical Propositions*, wherein the Middle Term is evidently join'd with one Part of the Question in the Major Proposition, and with the other in the Minor, from whence a plain and single Conclusion is naturally drawn. Such is the Syllogism in the foregoing Chapter.

Q. Which are the Rules relating to the Formation of *simple Syllogisms*?

A. They are these. 1, *The Middle Term must not be taken twice particularly, but once at least universally.*

2. *The Conclusion must be drawn from the Major and Minor Premises.*

2. The Terms in the Conclusion must never be taken more universally than they are in the Premisses. 3. A negative Conclusion cannot be proved by two affirmative Premisses. 4. If one of the Premisses be negative, the Conclusion must be negative. 5. If either of the Premisses be particular, the Conclusion must also be particular. 6. No Conclusion can be drawn from two negative Premisses. 7. Nor can any thing be concluded from two particular Premisses.

Here it is proper to take some Notice of the various *Moods* and *Figures* of Simple Syllogisms, which have been invented by Logicians, and about which they have spent a great deal of Time and Paper; for though the Light of Nature and a good Judgment contribute more to true Reasoning than all these scholastic Subtleties, yet in some Cases they may have their

their Use, and therefore we shall briefly explain them.

Q. What is the *Figure* of a Syllogism?

A. It is the proper Disposition of the *Middle Term* with regard to the *Extremes*, or Parts of the Question.

Q. What is the *Mood* of a Syllogism?

A. It is proper Disposition of the *Propositions* according to their *Quantity* and *Quality*, that is, their *universal* or *particular Affirmation* or *Negation*. The several Moods of Syllogisms have certain artificial Names given them by Logicians, wherein the Consonants are neglected, and only the Vowels A, E, I, O, regarded, which denote the *Quantity* and *Quality* of the Propositions.

Q. How many *Figures* are there?

A. There are usually reckon'd three, though some add a fourth.

Q. How

Q. How is the *Middle Term* disposed of in these Figures?

A. In the *first* Figure the Middle Term is the Subject of the Major Proposition, and the Predicate of the Minor. In the *second* the Middle Term is the Predicate of both the Premisses. In the *third* it is the Subject of both the Premisses.

Q. How many *Moods* does the *first* Figure contain?

A. *Four*, whose Names are *Barbara*, *Celarent*, *Darii*, and *Ferio*; of which the following are Examples:

BAR. Every wicked Man is miserable.

BA. All Tyrants are wicked Men.

RA. Therefore all Tyrants are miserable.

CE-

Ce- *They who neglect their Duty
are not wise.*

LA- *Idle Boys neglect their
Duty.*

RENT. *Therefore idle Boys are not
wise.*

DA- *They who please God are
happy.*

RI. *Some poor Men please God.*

I. *Therefore some poor Men
are happy.*

FE- *Disobedient Children are
not Blessings.*

RI- *Some Children are disobe-
dient.*

O. *Therefore some Children are
not Blessings.*

Q. How many *Moods* are there in
the second Figure?

A. Four,

A. Four, the Names whereof are Cesare, Camestres, Festino, and Baroco; of which take these Examples.

CE- No liar is fit to be believ'd.

SA- Every good Christian is fit to be believ'd.

RE. Therefore no good Christian is a Liar.

CA- All pious Men deserve Esteem.

MES- No Robbers deserve Esteem.

TRES. Therefore no Robbers are pious Men.

FE- No Sin is excusable.

STI- Some Faults are excusable.

NO. Therefore some Faults are not Sins.

B A - Every Part of Religion is rational.

R O - Some Doctrines are not rational.

C O . Therefore some Doctrines are no Part of Religion.

Q. How many Moods are there in the third Figure?

A. Six, the Names of which are Darapti, Felapton, Disamis, Datisi, Bocard, Ferison. Examples of each follow.

D A - All good Christians shall be saved.

R A P - All good Christians have sinned.

T I . Therefore some who have sinned shall be saved.

FE- No Hypocrites are pleasing
to God.

LAP- All Hypocrites appear to be
religious.

TON. Therefore some who appear
to be religious are not plea-
sing to God.

DI- Some Men are honourable.

SA- All Men have their Imper-
fections.

MIS. Therefore some who have
Imperfections are honour-
able.

DA- All virtuous Men are hap-
py.

TI- Some virtuous Men are Beg-
gars.

SI. Therefore some Beggars are
happy.

Bo- *Some Wars are not to be avoided.*

CAR- *All Wars produce Bloodshed.*

DO. *Therefore some Bloodshed is not to be avoided.*

FE- *No Afflictions are pleasant.*

RI- *Some Afflictions are good for us.*

SON. *Therefore some Things that are good for us are not pleasant.*

Q. What are the *special Rules* of these Figures ?

A. In the *first*, the Major Proposition must always be universal, and the Minor affirmative ; but it admits of all Sorts of Conclusions, whether universal or particular, affirmative or negative.—In the *second*, the Major must also be universal ; and one of the

Pre-

misses, with the Conclusion, always negative.—In the *third*, the Minor must be affirmative, and the Conclusion always particular.

Q. How is the *Middle Term* placed in the *fourth Figure*?

A. It is the *Predicate* in the *Major Proposition*, and the *Subject* in the *Minor*; but this is such an indirect Way of drawing a Conclusion, that it may be look'd upon as useless, and is not worth explaining by Examples.

Q. What is a *Complex Syllogism*?

A. Those Syllogisms are call'd *Complex*, wherein the *Middle Term* is not connected with the *whole Predicate*, or the *whole Subject*, in two distinct Propositions, but is intermix'd and compared with them by Parts, or in a confused Manner, and in different Forms of Speech. For Example :

The Devil is a wicked Spirit.

Some Indians worship the Devil.

Therefore some Indians worship a wicked Spirit.

In this Syllogism the Predicate of the Conclusion is *worship a wicked Spirit*: Part of which is join'd with the Middle Term *Devil* in the Major Proposition, and the other Part in the Minor. This reduced to a simple Syllogism, in the Mood *Darii* stands thus :

The Devil is a wicked Spirit.

What some Indians worship is the Devil.

Therefore what some Indians worship is a wicked Spirit.

But the conclusive Force of this Syllogism was evident enough without such Reduction : And the same may be

be said of a vast Number of other Arguments used in the Writings of learned Men, as well as in common Conversation, it often appearing plainly that the Inference is just and true, though the Form of the Syllogism is irregular and confused.

Q. What is a *Conjunctive Syllogism* ?

A. It is one whose Major Proposition has *distinct Parts*, which are join'd by a Conjunction, or some such Particle of Speech. These Syllogisms are of various Kinds, but the chief of them are *four*, viz. the *Conditional*, the *Disjunctive*, the *Relative* and the *Connexive*; which the following Examples will explain.

i. A *Conditional* or *Hypothetical Syllogism* is that whose Major or Minor, or both, are conditional Propositions; as,

If there be a God, the World is govern'd by Providence.

But there is a God.

Therefore the World is govern'd by Providence.

Here the Antecedent is asserted in the Minor, that the Consequent may be asserted in the Conclusion ; which is call'd arguing from the Position of the Antecedent to the Position of the Consequent.—Again :

If the Sun shines, it is Day.

But it is not Day.

Therefore the Sun does not shine.

Here the Consequent is contradicted in the Minor Proposition, that the Antecedent may be contradicted in the Conclusion ; which is call'd arguing from the removing of the Consequent to the removing of the Antecedent.

2. A *Disjunctive Syllogism* is when the Major Proposition is disjunctive, being connected by the Particles *or*, *either*, &c. as in the following Instances :

We either desire to be happy or miserable.

But we do not desire to be miserable.

Therefore we desire to be happy.

This Kind of Syllogism may have many Parts or Members ; as,

It is either Spring, Summer, Autumn, or Winter.

But it is neither Spring, Summer, nor Autumn.

Therefore it is Winter.

3. A *Relative Syllogism* is when the Major Proposition is relative ; as,

Where

Where the Treasure is, there is the Heart.

But a Miser's Treasure is in his Bags.

Therefore his Heart is there also.

Or, A Saint's Treasure is in Heaven:
Therefore his Heart is in Heaven also.

To this Head may be referr'd those Syllogisms that relate to *Proportion*; as,

As Three are to Six, so are Four to Eight.

But three make the Half of Six.

Therefore Four make the Half of Eight.

4. A *Connexive Syllogism* has generally the Parts of the Major join'd together by a Copulative, and is by some call'd a *Copulative Syllogism*; as,

No Man can serve God and Mammon.

But the covetous Man serves Mammon.

Therefore he cannot serve God.

Or, *The true Christian serves God :*

Therefore he cannot serve Mammon.

N. B. In all Kinds of Conjunctive Syllogisms great Care should be taken that the Major Proposition be true; for upon that depends the whole Force of the Argument.—Thus much for Single Syllogisms.

Q. Which are properly call'd Compound Syllogisms?

A. Those which contain more than three Propositions, being made up of two or more Single Syllogisms, into which they may be resolved. Of these there are several Kinds, the chief

chief whereof are the *Epichirema*, *Dilemma*, *Prosylllogism*, and *Sorites*.

Q. What is an *Epichirema*?

A. A Syllogism which proves the Major or Minor, or both, before it draws the Conclusion; as,

Sickness may be good for us; for it shews us our Frailty, weans us from worldly Enjoyments, and makes us think of dying.

But we are uneasy under Sickness; which we manifest by Complaints, Groanings, &c.

Therefore we are sometimes uneasy under that which is good for us.

Q. What is a *Dilemma*?

A. It is a Sort of Argument wherein the Whole is divided into all its Parts or Members, and then something is inferr'd concerning each Part, which is finally inferr'd concerning the

the Whole. This Kind of Syllogism is so contrived, that let your Adversary take which Side of the Question he pleases, the Conclusion turns to his Disadvantage. For Example :

In Heaven we shall either have Desires or not.

If we have no Desires, then we shall have full Satisfaction : If we have Desires, they will be satisfied as fast as they arise.*

Therefore in Heaven we shall be compleatly satisfied.

A Dilemma may be faulty three Ways : *First*, when the Parts or Members of the Division in the Major are not fully enumerated ; *secondly*, when what is asserted in the Minor concerning each Part is not true ; *thirdly*, when the Argument may be retorted with equal Force upon him who uses it.

it. This last was the Fault of the celebrated Dilemma of *Protagoras*, which he made use of on the following Occasion. *Protagoras* taught *Euathlus* the Art of Pleading, in Consideration of a Sum of Money, which *Euathlus* promised to pay him the first Day that he gain'd any Cause in Court. After a Time *Protagoras* goes to Law with *Euathlus* for the Money, and argues in this Manner: *Either I shall gain the Cause, or you will gain it.* *If I gain the Cause, you must pay me according to the Sentence of the Judge:* *If you gain it, you must pay me according to the Covenant between us.* *Therefore whether the Cause goes for me or against me, you must pay me the Money.* But *Euathlus* thus retorted the Dilemma upon his Master. *Either I shall gain the Cause, or lose it.* *If I gain it, nothing will be due to you according to the Sentence:* *If I lose it, nothing*

nothing will be due to you according to our Covenant. Therefore, let the Cause go which Way it will, I shall pay you nothing.

Q. What is a *Prosyllogism*?

A. It is an Argument composed of two Syllogisms, so connected, that the Conclusion of the former is the Major or Minor of the latter ; as,

Blood cannot think :

But the Soul of Man thinks :

Therefore the Soul of Man is not Blood.

But the Soul of a Brute is his Blood.

Therefore the Soul of a Man is different from the Soul of a Brute.

Q. What is a *Sorites*?

A. It is an Argument wherein several Middle Terms are successively con-

connected in several Propositions, till the last Proposition connects its Predicate with the Subject of the first. — Such was the merry Argument of *Themistocles*, to prove that his little Son, under ten Years of Age, govern'd the whole World: *My Son governs his Mother; his Mother me; I the Athenians; the Athenians the rest of Greece; Greece commands Europe; Europe the whole World: Therefore my Son governs the whole World.*

In this Place it may not be improper to add a Syllogism call'd *Induction*, wherein from several particular Propositions a general one is inferred; as,

Purgatory cannot be proved from the Gospels;

Nor from the Acts of the Apostles;

Nor from the Epistles;

Nor

*Nor from the Book of Revelations :
Therefore it cannot be proved from
the New Testament.*

These Kinds of Syllogisms, which have more than three Propositions, may be call'd redundant ; but there is a defective or imperfect Kind, call'd an *Enthymem*, which is the most common Sort of Argument both in Writing and Conversation.

Q. What is an *Enthymem* ?

- A. An Argument consisting only of two Propositions, viz. the Conclusion, and one of the Premisses, the other being suppress'd, as being sufficiently clear and obvious, and easily supplied by the Understandings of Mankind ; as,

*True Religion is accompanied with
good Morals :*

*Therefore a Knave is not truly re-
ligious.*

Q. How are Syllogisms distinguish'd with respect to the MIDDLE TERM ?

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A. *Syllogisms*, or *Arguments*, (for so they are properly call'd as we now consider them) are said to be *Grammatical*, *Physical*, *Moral*, *Theological*, &c. according to the Art, Science, or Subject from whence we borrow the *Middle Term*, or *Topic*, which we make use of in the Proof of any Proposition. For Instance : If we endeavour to prove from the Principles of *Reason*, and *Equity*, that *no Man should steal his Neighbour's Goods*, the Argument is *Moral*; but if we prove the same Thing from Scripture, then it is a *Theological Argument*.

Q. Is this the only Distinction of Arguments with regard to the *Middle Term*?

A. No ; in this respect they are distinguish'd into *Certain* and *Probable*, *Artificial* and *Inartificial*, *Direct* and *Indirect*.

Q. What is the Difference between a *probable* and a *certain Argument* ?

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A. If I infer that *Thomas* will bring himself to the Gallows, because he commits frequent Robberies on the Highway, this is a *probable* Argument, not a *certain* one, for it is possible he may die a natural Death.

Q. Have *certain* Arguments any other Name?

A. Yes, they are usually call'd *Demonstrations*, because their Conclusions are founded on clear and undeniable Principles; and they are generally divided into two Sorts: (1.) Demonstrations *à priori*, whereby an Effect is proved from a Cause; as, I prove *the Scriptures to be true*, because they were dictated by the Spirit of God, who cannot lye. (2.) Demonstrations *à posteriori*, whereby a Cause is proved from an Effect; as, when I view a *Watch*, or other curious *Machine*, I conclude it was made by some *Artificer*. ——

N. B. Though these are peculiarly
K 2 call'd

call'd *Demonstrations*, yet the Name is frequently given to any strong and convincing Argument.

Q. What is an *artificial* Argument?

A. That which is taken from the Nature and Circumstances of Things ; and such an Argument, if strong, produces a *natural Certainty*.

Q. What is an *inartificial* Argument ?

A. That which is founded on the Testimony of another : And Human Testimony, if strong, produces a *moral Certainty* ; but Divine Testimony produces a *supernatural Certainty*, which is of the highest Kind.

Q. What is a *direct* Argument ?

A. That wherein the Middle Term proves the Question itself, and infers the Proposition which was the Matter of Enquiry.

Q. What is an *indirect* Argument ?

A. An

A. An Argument is said to be *indirect* or *oblique*, when the Truth of the Thing enquired after is made appear by proving or refuting some other Proposition.—*Indirect Arguments* are of several Kinds, *viz.* (1.) When any Proposition is proved to be true by shewing the Falsity, Improbability, or Impossibility of some contradictory Proposition ; and when it is shewn, that if the original Proposition be supposed false, or denied, some great Absurdity will follow. This Logicians call a Proof *per impossibile*, or a *Reductio ad absurdum*. (2.) When some Proposition is proved to be true that is *less probable*, and thence it is inferr'd that the original Proposition is true because it is *more probable*. This is call'd an Argument *ex magis probabili ad minus*. (3.) When we prove the Truth of any Proposition, upon which our Adversary had

before agreed to give up the Question. This is call'd an Argument *ex concessō.*

Q. Are there any other Arguments which derive their Distinction from the *Middle Term?*

A. Yes, several ; whose Latin Names it may be proper to mention and explain, as they are frequently made use of by English Authors. (1.) An Argument founded on the profess'd Principles or Opinions of the Person with whom we argue is call'd *Argumentum ad Hominem*, an Address to our *Principles or Profession*. (2.) An Argument drawn from the Nature or Existence of Things, and address'd to the Reason of Mankind, is call'd *Argumentum ad Iudicium*, an Address to our *Judgment*. (3.) If it be built on some convincing Testimony, it is term'd *Argumentum ad Fidem*, an Address to our *Faith*. (4.) If an Argument

ment be weak in itself, and yet an Adversary is not able to confute or answer it, this is call'd *Argumentum ad Ignorantiam*, an Address to our *Ignorance*. (5.) An Argument suited to engage the Inclinations and Passions, rather than to convince the Judgment, is call'd *Argumentum ad Passiones*, an Address to our *Passions*. (6.) When an Argument is drawn from the Sentiments of some great or learned Man, whose Authority we revere, and are afraid or ashamed to oppose, it is term'd *Argumentum ad Verecundiam*, an Address to our *Modesty*.

Q. Have you any other Distinction of Arguments to mention?

A. Only one, which arises from the Premisses, according to which an Argument is either *Uniform* or *Mix'd*. If both the Premisses are derived from the same Source of Knowledge, whether *Sense*, *Reason*, or any other,

an Argument is call'd *uniform*; but if the Premisses are derived from different Springs of Knowledge, it is call'd a *mix'd* Argument.

Having thus given an Account of the chief Kinds of Syllogisms or Arguments made use of in just Reasoning, I now proceed to those call'd *Sophisms* or *Fallacies*, which appear to be true, but are really false at Bottom, and are invented with a Design to embarrass and deceive.

C H A P. III:

*Of the several Kinds of SOPHISMS,
and the Method of solving them.*

Q. **W**HAT is a *Sophism*?

A. An Argument which carries with it the Face or Appearance of

of Truth, and yet leads us into Mistake.

Q. How many Kinds of Sophisms are there?

A. They are very numerous, but may all be reduced to some of the following Heads :

1. The first Sort is call'd by Logicians *Ignoratio Elenchi*, or a *Mistake of the Question*; that is, when something is proved which is neither necessarily connected nor inconsistent with the Thing enquired after. For Instance, if the Question were proposed, *Whether it be hurtful to drink Wine to Excess*; a Sophist might endeavour to prove it not hurtful, by arguing that Wine helps *Digestion*, raises a Man's Spirits, gives him Courage, makes him strong, active, and capable of enduring Hardships and Fatigue: But though all this be granted, it is easy to shew, that the excessive Drink-

Drinking of Wine may be very prejudicial to him that drinks it, by bringing on Poverty, Diseases, and Death itself, as well as endangering his Happiness in the World to come.—It is a Fallacy of the same Kind, when a Disputant, finding his Adversary too hard for him, artfully turns the Discourse to some other Point which he can prove, (and which indeed his Opponent never denied) and then triumphs as if he had gain'd a considerable Advantage.

2. Another Kind of Sophism is call'd *Petitio Principii*, a *Begging the Question*, or a *Supposition of what is not granted*; that is, when we endeavour to prove any Proposition by something equally uncertain and disputed. Thus a *Papist* pretends to prove his Religion the best, because it is derived from *Christ and his Apostles*, and agrees with the *Doctrine of the Fathers*,

Fathers, and of the Christian Church throughout all Ages : Whereas these are contested Points, and what Protestants will by no means grant.

3. A Fallacy of the same Nature with that last mention'd is the *Circle*; which is, when one of the Premisses of a Syllogism is question'd, and we attempt to prove it by the Conclusion ; or when in a Train of Syllogisms we prove the last by the Conclusion of the first. Thus the Papists pretend to prove the *Scriptures to be true by the Authority of their Church*, and then to shew the *Authority of their Church from the Scriptures*.

4. There is another Kind of Sophism call'd *non Causa pro Causa*, or the *assigning a false Cause*. Scarce any thing is more common than this Sort of Fallacy. *Astrology*, or the *Telling of Fortunes* by the various Positions of the Stars and Planets, is built

built upon it : And it is a Sophism of this Kind, when Comets, Eclipses, Northern Lights, or such-like Phænomena, are supposed to foretel the Fate of Kings and Kingdoms, Wars, Famine, and other national Calamities. In the same fallacious Manner weak People are apt to judge of accidental Events : If a Man steals a Horse, and a Twelvemonth afterwards rides a hunting, is thrown off, and has a Leg or an Arm broke, it is presently imputed to the Divine Vengeance on him for the Theft he had committed.

5. The next Sophism, which is akin to the former, and very frequent, is call'd *Fallacia Accidentis*, wherein, from something merely *accidental* to any Subject, we judge of its *Nature* and *essential Properties*. Thus, because a Neighbour, when over-heated with Exercise, receiv'd Injury by drink-

drinking too large a Quantity of *cold Water*, we are apt to condemn it as absolutely unwholsome upon all Occasions. So *Wine* has been pronounced an evil Thing, and the Use of it forbidden, because it has been the accidental Cause of Quarrels and Bloodshed.

6. Another Sophism of the same Nature is when we argue from that which is true in *particular Circumstances*, to prove the same thing true *absolutely* and *simply*, without any Circumstances being consider'd; as if we should say, *What we buy of the Butcher we eat for Dinner*: But *we buy raw Meat of the Butcher*: Therefore *we eat raw Meat for Dinner*.—The Reverse of this Sophism is arguing from what is *simply* and *absolutely* true, to prove the same true in *all particular Circumstances*; as if I should wrest a Sword out of the Hand of an Enemy

Enemy going to stab me, and he should argue that *I ought to give it him again, because no Man should withhold another's Property.*

7. We now come to the Sophisms of *Composition* and *Division*, which are the Reverse of each other. When an Inference is drawn from Ideas in a *compound Sense*, which is only true in a *divided one*, this is a Sophism of *Composition*; as if a Man should argue thus: *Two and three are even and odd: Five are two and three: Therefore five are even and odd.* On the contrary, to infer a thing concerning Ideas in a *divided Sense* which is only true in a *compound one*, is a Sophism of *Division*; as if I should say, *Five is one Number: Two and three are five: Therefore two and three are one Number.*—A Sophism of the same Kind is sometimes committed by not rightly distinguishing between the *collective* and

and *distributive* Sense of the Word *All*; or by making *All* or *No* refer to *Species* in one Proposition, and *Individuals* in another.

8. The Sophisms arising from the *Ambiguity of Words* are more numerous than those of any other Kind; and indeed several of the Fallacies already mention'd might be comprehended in this Class. If we make use of Words or Phrases plainly equivocal, it is a *Sophism of Equivocation*; as if any one should argue thus: *A Church is a Building of Stone: But a religious Assembly is a Church: Therefore a religious Assembly is a Building of Stone.* Here every one sees, that the Word *Church* bears a very different Signification in the *Major Proposition* from what it does in the *Minor*, and therefore the Syllogism proves nothing at all. But we need not enlarge upon this Head, since there

there is little Danger of being imposed upon by such gross Equivocations, which a Person of common Sense discovers as soon as they are proposed, though perhaps he cannot shew the Fault of the Syllogism by the Rules of Logic.

Q. But is there no general Test of true Syllogisms, and a Method of solving all sophistical Arguments ?

A. Yes, there are two *general Methods* of reducing all Syllogisms to a Test of their Truth or Falshood.

Q. Which are they ?

A. The first is this : *In a just Syllogism one of the Premisses must contain the Conclusion, and the other must shew the Conclusion to be so contain'd.* This will appear by considering the following Example : *Whosoever bridles his Passions is wise : But a virtuous Man bridles his Passions : Therefore a virtuous Man is wise.* Here it is plain

plain that the *Major Proposition* contains the Conclusion, because under the general Character of one who bridles his *Passions*, the *virtuous Man* is undoubtedly included. This is shewn or declared in the *Minor Proposition*; and thence the Conclusion is evidently deduced, that *a virtuous Man is wise*.—
N. B. It is not always necessary that the *Major Proposition* should contain the Conclusion; in some Syllogisms the *Minor* contains it, and the *Major* shews it.

The second general *Test* of Syllogisms is this: *As the Terms in a Syllogism are usually repeated twice, so they must be taken precisely in the same Sense in both Places.* It is generally some Difference in the Sense of one of the Terms in the two Parts of a Syllogism that renders it unconclusive and fallacious, as appears by considering the following Sophisms. (1.)

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Nothing

Nothing is better than Heaven : But a Penny is better than nothing : Therefore a Penny is better than Heaven. This Sophism is evidently founded on the different Signification of the Term *Nothing*, it being used in a *positive Sense* in the first Proposition, but in a quite opposite or *negative Sense* in the second. (2.) *It is a Sin to kill a Man :* But *a Murderer is a Man :* Therefore *it is a Sin to kill a Murderer.* Here the Sophism lies in the different Senses of the Word *kill*; it being used in the first Proposition to signify *killing unjustly, or without a Law*; and being taken absolutely in the Conclusion for *putting a Man to Death in general.*

Thus much for the various Kinds of Sophisms.—I shall conclude this Part of Logic with some general Rules to assist our reasoning Powers in their Enquiry after Truth.

C H A P. IV.

General Rules to direct our REASONING.

Q. **W**HICH are the best Rules to direct us how to *reason* well?

A. The Directions given in the preceding Part of Logic to form our *Judgments* aright will also be of Service to direct our *Reasoning*; but we may draw some farther Assistance in this Respect from a careful Observation of the following Rules.

RULE I. *We should accustom ourselves, even in our younger Years, to clear and distinct Ideas, to evident Propositions, and to strong and convincing Arguments.* A Habit of conceiving clearly, and reasoning strongly, is not to be attain'd by a Set of logical Precepts, a Happiness of Constitution, or a Brightness of Genius: Such a Habit must be form'd and establish'd A P by Custom and Practice, which there-

fore we should begin in the early Part of our Life.

RULE II. Endeavour to enlarge your general Acquaintance with Things, in order to furnish yourself with Plenty of Topics, or Middle Terms, to make use of in your Syllogisms; and diligently search into and consider the Nature, Properties, Circumstances and Relations of the particular Subject about which you are arguing or judging. The most extensive Survey possible of our whole Subject is the best Security against Inconsistencies; for it is arguing upon a partial View of Things that leads us into frequent Mistakes and Absurdities.

RULE III. While you are arguing upon any Subject, be sure to keep the precise Point of the Question always in View; and neither add to it, nor omit any Part of it. By thus keeping to the simple Matter of Enquiry, you will be secured from impertinent Answers and rash Determinations.

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RULE IV. Having well consider'd what is unknown in the Question, then consider how much you know of it already, or of the Ideas and Terms whereof it is composed. By comparing the known and unknown Parts of a Question together, we find what Connection they have with each other; and the Ideas by which they are connected will furnish us with Arguments: But when we make this Comparison, we must take care not to be too hasty in determining, especially in Matters of Importance, lest our Conclusion should be Fancy, instead of real Truth.

RULE V. In chusing our Arguments, we should always take such as are surest, and carry with them the greatest Evidence. Remember that it is the Weight of Arguments, not their Number, which is chiefly to be regarded, especially when the Thing to

be proved admits of *natural Certainty* and *Demonstration*: But in Cases where we cannot go beyond *Probability* or *moral Certainty*, the Number of Arguments increases the Degree of Probability, and gives us a greater Assurance of the Truth of what is proposed.

RULE VI. *If we are to prove any Conclusion we have made, we should do it (as far as possible) by Propositions that are still more plain and certain, at least more known and intelligible to the Person whom we are endeavouring to convince.* The Reason of this is evident; for every one sees the Folly of attempting to explain one Obscurity by another, or to confirm what is doubtful by something equally or more uncertain.

RULE VII. *Let your Arguments tend to enlighten the Understanding, as well as to captivate the Judgment.*
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That is, let them not only force the Assent, but also illustrate the Point in Question, so as to make it better understood.

RULE VIII. *Take care to distinguish between an Explication and an Argument, between a mere Illustration and a solid Proof.* Proper Similes and Allusions are often useful in explaining and giving Light to a Subject, but we should not mistake them for conclusive Arguments.

RULE IX. *In all our Reasonings let us pursue Truth with Sincerity, and follow it wheresoever it leads us.* In our Search after true Knowledge we should not be diverted or influenced by any Passion or Prejudice; nor should we determine on either Side of a Question, till we have well weigh'd the Arguments and Objections on both.

P A R T IV.

Of DISPOSITION, or METHOD.

Q. **W**HAT is meant by DISPOSITION, the Fourth Part of Logic?

A. DISPOSITION, or the *Art of Method*, is the *Ranging a Variety of Thoughts on any Subject in such an Order as is fitteſt to gain the cleareſt Knowledge of it, to retain it longeſt, and to explain it to others in the beſt Manner*. Or, it is the *Dispositiong our Thoughts in ſuch Order as to be moſt eaſily conceiv'd and remember'd by ouरſelves and others*.

Q. What Inconveniencies arife from the Want of Method?

A. With-

A. Without it, Confusion, Darkness, and Mistake will unavoidably attend our Thoughts and Discourses.

C H A P. I.

Of the several Kinds of METHOD.

Q. **H**OW many Kinds of *Method* are there?

A. Method is distinguish'd into two general Kinds, viz. *Natural* and *Arbitrary*.

Q. What is *Natural Method*?

A. It is that which observes the Order of *Nature*, and proceeds in such a Manner, as that the Knowledge of the Things which follow depends in a great measure on the Things which go before.

Q. Is not this Method twofold?

A. Yes, it is either *Analytic* or *Synthetic*.

Q. What

Q. What is *Analytic Method* ?

A. The *Analytic Method*, or *Method of Resolution*, is what we generally use in our Enquiries after Truth. It begins with the *whole Compound*, and then leads us into a more perfect Knowledge of it, by *resolving* it into its *first Principles* or *Parts*, and shewing its *Nature* and *Properties*. Thus we are first acquainted with the *whole Body* of an Animal, and afterwards come to the Knowledge of its several *Parts* by *Anatomy* or *Dissection*.

Q. What is *Synthetic Method* ?

A. The *Synthetic Method*, or *Method of Composition*, is that whereby Truth, when discover'd, is usually taught or imparted to others. This begins with the *Parts*, and so leads on to the Knowledge of the *Whole*; it proceeds gradually from the *most simple Principles*, to that which is

drawn

drawn from, or compounded of them. Thus having learnt the *Letters* of the Alphabet, we join them to make *Syllables*, of Syllables we compose *Words*, and of Words we make *Sentences* and *Discourses*.

Q. How do you farther explain the Difference of these two Methods?

A. They differ from each other as a Way which *leads up* from a Valley to a Mountain differs from itself, when consider'd as *leading down* from the Mountain to the Valley. The one is like tracing a Genealogy by *descending* from the Ancestors to the Posterity; the other like the contrary Method of *ascending* from the Posterity to the Ancestors. Thus the Difference between the *Synthetic* and *Analytic* Method is plain and obvious; but as the Subjects of Knowledge are infinite, and the Ways of obtaining it almost infinitely various, the precise

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Distinction between these two Methods cannot always be maintained ; and in many Cases they are mix'd together, and both employed in searching after and communicating Truth. Upon the Whole, neither of these Methods should be too scrupulously observed, either in our Investigation of Truth, or the Communication of it to others : It is sufficient, if we so far keep to the Order of Nature as to make the Knowledge of Things following depend on the Knowledge of those that go before. A *mix'd Method* will oftentimes answer these Purposes most effectually ; and indeed all Method whatsoever must be regulated by a judicious View of, and Attention to, our chief End and Design.

Q. What is meant by *Arbitrary Method* ?

A. It

A. It is that which leaves the Order of Nature, and is not confin'd to any certain Forms, but accommodates itself to various Purposes ; whether it be to assist the Memory, to persuade, delight or amuse the Reader or Hearer. This Kind of Method is chiefly used by *Orators* and *Poets*, who sometimes omit Things essential to the Subject which they apprehend would be displeasing and run into beautiful Digressions or needless Circumstances, which have little Relation to the Point in Hand, but are adapted to allure and entertain the Mind. In a Word, they artfully invert the Order of Times and Actions, placing the first last, and the last first ; and so manage it as to set every thing in the most affecting Light, and captivate the Senses and Passions of Mankind.

C H A P.

C H A P. II.

The Rules of METHOD.

Q. WHICH are the best Rules to be observ'd in *Natural Method?*

A The most important Rules of *true Method*, whether *Analytic* or *Synthetic*, are the following.

RULE I. *Good Method should be safe and secure from Error.* To this End our fundamental Propositions must be well-grounded, our Arguments strong, and drawn up with so much Cauti-
tion, as to prevent (if possible) all Objections.

RULE II. *Our Method should be plain and easy*, that so it may exhibit a clear and comprehensive View of the whole Design. In order to this we must begin with Things that are most known and obvious, and proceed by

by gentle Steps to Things that are unknown and difficult ; always endeavouring to express our Conceptions in a clear and easy Manner. We should not be over-hasty either in Learning or Teaching ; not fond of crowding too many Thoughts into a little Compass, or of running into numerous Subdivisions.

RULE III. Our Method should be distinct, and free from any Mixture that might introduce Perplexity and Confusion. No Arguments must be used that are entirely foreign to the Subject ; every Idea must be divided into its Parts, as far as is requisite to the present Design ; every Argument must be ranged in its proper Class ; and in the Partition of a Discourse we should take care that particular Heads do not interfere with the general, nor with each other.

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RULE IV. *Good Method should be full, so that nothing may be wanting that is necessary or proper.* In explaining a Subject we should not skip over what is difficult or obscure; nor be deficient in enumerating its Parts or Properties. In illustrating a difficult Point we should not be sparing of Words, but rather diffusive; and in a Narrative we should omit no important Circumstance. By *Fulness of Method*, however, is not meant that every thing should be said that can be said upon any Subject, but only what is necessary or has a direct Tendency to the Design in View.

RULE V. *Our Method should be brief, (so far as is consistent with the foregoing Rule) and free from every thing superfluous and impertinent.* To this End we must guard against a tedious Prolixity, avoid needless Repetitions. Explications where there is

no Obscurity, Proofs and Refutations where the Case requires none, useless Formalities, and long or frequent Diggessions. In short, there is a due Medium to be observed in our Method, so that our Brevity may not render us obscure, nor our Copiousness tedious and trifling.

RULE VI *We must adapt our Method to the Subject in hand, to our present Design, and to the Age and Place we live in.* All Subjects are not to be handled in the same Method; and if we treat the same Subject with different Views, we shall find it necessary to use different Methods. Some little difference must likewise be paid to the Custom of the Age, and to the Humour and Genius of our Readers or Hearers; though we must by no means suffer ourselves to be so far influenced thereby, as to neglect,

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those Rules of Method which are absolutely necessary to find out Truth, or communicate it to others.

RULE VII. *Good Method requires that the Parts of a Discourse should be well connected.* In order to this, we must always keep our main Design in View, and let every Particular (as far as possible) have a visible Tendency towards it. The mutual Relation and Dependence of the several Parts of a Discourse should be so just and evident, that each may naturally lead on to the next, and be join'd to it by some proper and graceful Form of Transition.

We are now come to the End of our little Treatise of LOGIC, which we have endeavour'd to render as complete as our narrow Limits would permit: But we think it will neither be

be impertinent, nor unserviceable to the young Scholar, to add here (by way of Supplement) some short Account of the *Academic* and *Socratic* Methods of *Disputation.*



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A Sup.



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SUPPLEMENT TO THE ART OF LOGIC.

C H A P. I.

Of Academic or Scholastic Dis- putation.

Q. **W**HAT do you mean by the Academic Method of *Disputation*?

A. I mean the Method in which *Disputes* are usually managed in *Academies or Schools of Learning*.

Q. In

Q. In what Manner is this done?

A. First of all the *Tutor* appoints a *Question* in some of the Sciences, to be debated amongst his Students; one of whom undertakes the *affirmative* or *negative* Side of the Question, and is to defend his Assertion or Negation, and to answer all Objections against it. Hence he is call'd the *Respondent*; and his Fellow-Students, who are appointed to raise Objections and carry on the Dispute against him, are call'd the *Opponents*.

Before the Time appointed for this Exercise, the *Respondent* writes a *Thesis*, or short Discourse on the Question proposed, which he reads at the Beginning of the Dispute. In this Discourse he explains and fixes the Sense of the Terms of the Question, declares its true Intent and Meaning, and separates and distinguishes it from those with which it has been compli-

cated, or to which it happens to be related. This done, he *affirms* or *denies* it, according to the Opinion of the Tutor, which is supposed to be the Truth.—In the second Part of this Discourse he produces his strongest Arguments in Defence of his own Side of the Question, and then leaves the other Students to object against it.

The *Respondent* having read over his *Thesis*, the youngest Student makes an Objection, which he draws up in the Form of a Syllogism. This Objection is repeated by the *Respondent*, who either denies one of the Premisses directly, or distinguishes upon some Expression in the *Major* or *Minor*, shewing in what Sense the Proposition may be true, but denying it to be true in the Sense which affects the Question in Dispute.

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The *Opponent* then proceeds by another Syllogism to vindicate the Proposition which the *Respondent* denied ; and the *Respondent* again answers, either by denying or distinguishing : And thus the Disputation is carried on by successive Syllogisms and Answers, till the *Opponent* has no more to say.

The first being silenced, the *next Student* proposes his Objection ; then the *third, fourth, fifth*, and so each in his Turn according to Seniority, till it comes to the *oldest Student*, who is the last *Opponent*.

During this Time the *Tutor* sits in a Chair as *President* or *Moderator*, whose Business is to see that the Rules of Disputation and Decency are observed on both Sides, and to admonish those who are guilty of any Irregularity. He is also to explain, strengthen, or correct the *Respondent's*

Answers, as he finds Occasion ; and if the *Respondent* be at a Loss, he assists him by suggesting some Answer to his *Opponent's* Objection. But this is not done in publick Disputes, where the Disputants chuse their own Side of the Question ; for in such Cases the *Moderator* neither favours the *Respondent*, nor *Opponent*, but only takes care that they observe the Laws of Disputation.

Q. Which are the *Laws of Disputation* ?

A. The Laws to be observed by the *Opponent* are these which follow :
 1. He must directly contradict the *Respondent's* Proposition, and not merely attempt to confute the Arguments by which it is supported. 2. He must contradict the Proposition as the *Respondent* has stated it, and not in any other Sense. 3. His Argument must be proposed in the Form of a Syllo-

Syllogism, agreeable to the Rules of Logic, and without any Fallacy whatsoever. 4. It is best for the Opponent to draw his Objections from the Nature of the Question itself ; tho' it is also allowable for him to attack the Respondent by *indirect Arguments*.

5. If the Respondent denies any Proposition, the Opponent must directly defend it, by making it the Conclusion of his next Syllogism. 6. When the Respondent limits or distinguishes any Proposition, the Opponent must directly prove it in that very Sense wherein the Respondent denied it.

Q. Which are the Laws that oblige the Respondent ?

A. They are these. 1. He must repeat the Opponent's Argument before he attempts to answer it. 2. If a Syllogism be faulty in its *Form*, he must shew where the Fault lies according to the Rules of Logic. 3. If the

the *Matter* of an Objection be faulty in any Part of it, he must grant what is true in it, and deny what is false.

4. If his *Opponent's Argument* does not directly affect his *Proposition*, he must expose its Weakness, by shewing it might be admitted without any Pre-judice to his own *Thesis*. 5. If an *hypothetical Proposition* be false, he must deny the *Consequence*; if a *disjunctive one*, he must deny the *Disjunction*, &c. 6. After the *Respondent* has answer'd directly, he is sometimes permitted to answer indirectly; and also to shew how the *Opponent's Argument* may be retorted upon himself.

Q. Which are the Laws that oblige both *Respondent* and *Opponent*?

A. These that follow. 1. Certain general Principles, relating to the Question, should first be agreed on by both the *Disputants*. 2. When the State

State of the Controversy is well known and determined, neither of them must alter it in the Course of the Disputation. 3. Neither of the Disputants should invade the Province of the other. 4. The one should not interrupt the other, but wait patiently till he has done speaking.

Q. What *Advantages* are to be gain'd by this Sort of Disputation ?

A. It gives a proper Degree of Courage to those who are too modest and distrustful of their own Abilities, and procures a Freedom and Readiness of Speech. It makes a Student more expert in vindicating Truth and refuting Error ; in warding off Objections, and discovering the subtil Arts of Sophisters. In a Word, it gives Vigour and Briskness to the Mind, makes the Thoughts active, sharpens the Wit, and quickens all the Powers of Invention.

Q. Are

Q. Are there no *Inconveniences* arising from Scholastic Disputation?

A. Yes, some very great ones; for Experience shews, that by a Habit of disputing, many young Students grow impudent, proud, unseasonably talkative, obstinate in maintaining their own Assertions, and ready to contradict almost every thing asserted by others. It is also plain that by this Sort of Exercises, wherein the same Persons are sometimes on the Side of Truth and sometimes against it, the Mind becomes insensibly wavering and unsettled, and is in Danger of falling into a *sceptical* or *doubting Humour*. Add to this, that in Scholastic Disputations the *Opponents* being all warmly employed in finding Arguments against the Truth, if one of them happens to invent a plausible Sophism, and manage it so as to puzzle the *Respondent*, and perhaps the *Mode-*

Moderator himself, he is tempted to suppose his Argument unanswerable, and so his Sentiments become engaged in favour of Error instead of Truth, which last is suppos'd to be maintained by the *Respondent*.

Q. Which are the best Means to prevent these Inconveniences ?

A. The Observation of the following Directions in Scholastic Disputes may be of some Service to prevent the ill Consequences that too often attend them.

1. Never dispute about Things not worth the knowing, but upon useful Subjects.
2. Dispute not about Matters beyond the Reach of Human Capacity, or about Words without Ideas.
3. Let not obvious and known Truths be brought into Dispute, merely to try the Skill of the Disputants.
4. To find out Truth should be the End of Disputation, not a Desire of Glory or Triumph over

over an Adversary. 5. Let not the *Respondent* endeavour to avoid the Force of his *Opponent's* Objections ; nor let the *Opponent* study to darken and confound the Answers of the *Respondent*. 6. To this End let both of them express their Thoughts as clearly and distinctly as possible, and be as brief as is consistent with Perspicuity. 7. They ought not to indulge Ridicule, nor use Jests or Witticisms, especially if the Subject be serious or divine. 8. They should abstain from all Sarcasm, Reproach, personal Scandal, and insolent Language. 9. When the Truth evidently appears on either Side, let them readily yield to Conviction ; but let not the Victor (whether it be *Respondent* or *Opponent*) triumph or insult over his vanquish'd Adversary.

C H A P. II.

*Of the SocrATIC Method of Dis-
PUTATION.*

Q. **W**HAT is meant by the *Socratic Method of Disputing?*

A. It is a Method which derives its Name from *Socrates*, an ancient *Athenian Philosopher*, by whom it was practised, and by other Philosophers in his Time, long before *Aristotle* invented the *Forms of Syllogism in Mood and Figure*, now used in *Scholastic Disputations*.

Q. How is a Dispute carried on in the *Socratic Manner?*

A. By Way of *Question and Answer*, representing the Form of a *Dialogue or common Conversation*, wherein the Person who instructs seems to be the Enquirer, and seeks

In-

Information from him who is instructed. If the Person with whom we argue makes use of *obscure* or *ambiguous* Words, we must ask him to *explain his Meaning*; for it often happens, that Men have accustom'd themselves to some Words or Phrases which they do not perfectly understand; and then by a few modest Questions they will much better discover their Ignorance, than by a direct Opposition, which often raises the Passions, and shuts a Door against Conviction. When we have gone thus far, if the Person be a sincere Lover of Truth, he will presently acknowledge that he did not sufficiently understand the Matter, and then the Dispute is at an End: But if he is obstinate, and will obtrude his Words upon us without defining them, we ought to proceed no farther till he has satisfied us what he means. We must press him with little

little Questions, as if we were dull of Apprehension, and should be glad to understand him better: But if we can by no means prevail with him to speak plainly, it is Time to put an End to the Dispute; since it is evident he knows not what he would be at, or has only a mind to wrangle. If at last we bring him to declare his Meaning clearly, we then proceed to ask him Questions upon the several Parts of the Doctrine he advances, and their Consequences; not as objecting against them, but for the sake of better Information. From these Questions, if proposed with Dexterity, it will easily appear whether the Doctrine be absurd or not; and to make the Matter still clearer, it will be proper to use Examples and Similitudes: But if this be not sufficient to shew the Falsity of the Opinion, we must enquire of the Person on what *Argu-*

mants or Proofs he grounds it ; and then pursue the same Conduct as we did in the first Part of the Dispute. Thus the Learner will be led into the Knowledge of Truth as it were by his own Invention, and being drawn by a Series of pertinent Questions to discern his Mistakes, he will more easily be induced to relinquish them as he seems to have discover'd them himself.

Q. Can't you give me an Example or two of this Method of Disputation ?

A. Yes ; we will suppose two Persons (*M.* and *N.*) disputing upon the *Efficacy of the Divine Providence* with respect to the Actions of Men.

M. You say that God has an *efficacious Operation in the Sins of Man* : Do you mean that he *makes Sin* ?

N. Far be it from me, for then God would be the *Author of Sin* ?

M. Do

M. Do you mean that God forces Men to commit Sin ?

N. No, the Expression is too harsh ; but God in an unknown and secret Manner so permits Sin, that it must necessarily be committed.

M. At first you used the Word Operation, now you use permit ; pray do they signify the same Thing ?

N. They do not absolutely mean the same Thing ; but they must be join'd together, so that what God does should be call'd an efficacious Permission ; for God neither makes Sin, nor does he simply permit it.

M. Then you mean that God permits something, and does something, so that Sin necessarily follows.

N. You have hit my Meaning.

M. Perhaps therefore God does in this Case what a Man does who cuts down a Dike, and lets the Sea overflow the Fields ; for he does something

in breaking the Dike, and *permits* something in letting the Water run through the Breach.

N. The Similitude expresses my Opinion very exactly.

M. But pray who blames the Sea or the Dike for this Inundation? And, if I mistake not, Man is no more to be blamed when he commits Sin, (according to your Doctrine) than the Sea or the Dike.

N. You do not observe the vast Difference there is between the Things themselves: Men are endued with *Understanding* and *Will*, which the Dike and the Water have not; and therefore that is a Crime in Man, which is not so in the Sea and the Dike.

M. But I desire to know, whether that which God *does* or *permits* has such a *Efficacy*, that Men can no more *not Sin* in Consequence of it, than the Water can refrain from flowing

ing through the Breach which affords it a free Passage ?

N. That is what I mean.

M. Therefore, according to you, there is the same Relation between God and the Sins of Men, as there is between the Man who made a Breach in the Dike and the Inundation which follow'd it.

N. There is, as to the Event, for both are equally *necessary*.

M. Then, according to our common Way of speaking, the Action of both may be express'd in the same Manner : That is, as the Man who broke down the Dike is properly said to be the *Cause* of the Damage done by the Inundation, because he did that which *necessarily* produced it ; so God (according to your Doctrine) is the *Author of Sin*, because he has put Man under a *Necessity* of sinning.

N. I cannot withstand the Force of your Reasoning ; I am now thoroughly sensible of the absurd Consequences of my Opinion.

To make the *Socratic Way* of disputing still better understood, let us consider another Example. Suppose *M.* would lead *N.* into the Belief of a future State of Rewards and Punishments, it might be done in the following easy Manner of Reasoning.

M. Did God make the World ?

N. Certainly he did.

M. Does God govern the World ?

N. As he made it, 'tis reasonable to suppose he governs it.

M. Is not God a *good and righteous Governor* ?

N. Doubtless he is.

M. What is the true Idea of a *good and righteous Governor* ?

N. That

N. That he punishes the Wicked, and rewards the Good.

M. But are the Wicked always punished in this Life?

N. No, every one's Observation tells him the contrary; for the worst of Men are oftentimes advanced to Riches and Honour, and have all the external Comforts that the World affords.

M. Are the Good always rewarded in this Life.

N. No certainly, for Poverty, Persecution, and various Kinds of Affliction, are often the Lot of the most virtuous Men.

M. How then does it appear that God is *good and righteous*?

N. I confess there is but little Appearance of it in the present State of Things.

M. Will there not be a Time then when the Scene of Things will be

changed, and God will make his Goodness and Righteousness in the Government of Mankind appear ?

N. Undoubtedly such a Time will come.

M. But if this be not done before Death, how can it be done at all ?

N. No other Way, that I can think of, but by supposing Man to have some Existence after this Life.

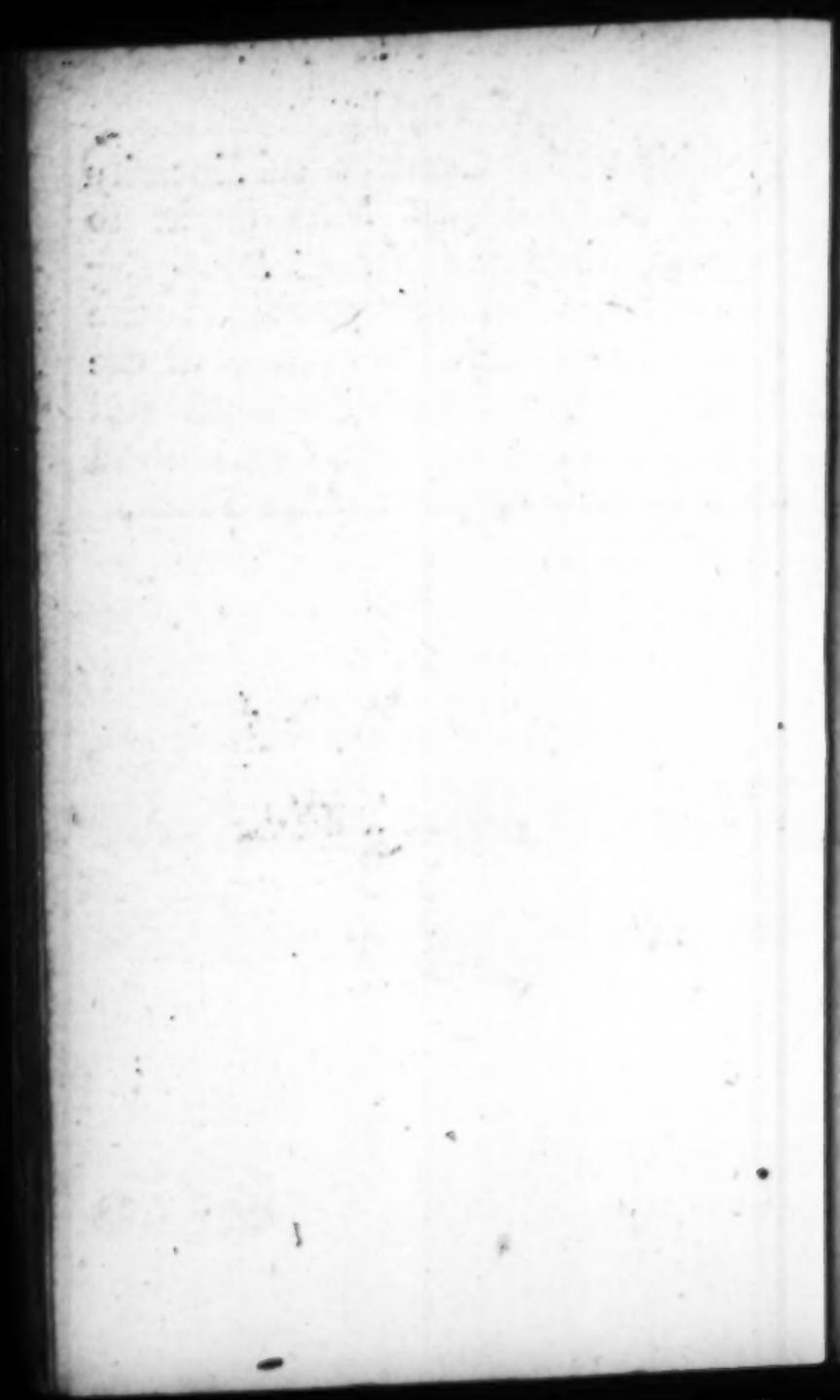
M. Then you are convinced that there must be a State of Rewards and Punishments beyond the Grave ?

N. Yes, I am thoroughly persuaded of it ; since the Goodness and Righteousness of God, as Governor of the World, cannot be made appear without it.

This Method of Reasoning, though it has been long neglected, is certainly a natural and pleasing Manner of Instructing, and is much more agree-

greeable to that Candour and Sincerity which every honest Man ought to propose, than the *Art of Wrangling* which for several Ages prevail'd in the Schools, and tended to overspread the Minds of Youth with Darkness and Uncertainty, and retard or mislead them in their Enquiries after Truth.





O N T O L O G Y :
OR THE
Science of BEING in general ;
With its AFFECTIONS.

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2.

CO



ONTOLOGY,
OR
METAPHYSICS.

CHAP. I.

Of BEING and NOT-BEING, and of
the Modes or Affections of Being in
general.

Q. **W**HAT is ONTOLOGY ?
A. It is a Science which
considers *Being in general*, its various
Modes

Modes or Affections, and its several
Kinds or Divisions.

Q. In what Sense do you use the Word *Being*?

A. So as to include not only whatsoever *is*, but whatsoever *can be*.

Q. What is meant by *Not-being*?

A. If we consider it as excluding all Substances and Modes whatsoever, it is then *nibility* or *mere Nothing*: But as it excludes particular Modes or Manners of Being, it may be consider'd either as a *Negation*, such is Deafness in a Stone; or as a *Privation*, such is Deafness in a Man.—N. B. Pure *Nothing*, consider'd in itself, has neither Being nor Affections, and yet it is evident we can frame some Sort of Notion or Idea of it, since we can reason and discourse about it: But our Imagination now and then leads us to mistake *Nothing* for *Something*, as in the Case of *Darkness* or *Shadows*, which

which are only the Absence of Light ; and on the other hand we sometimes mistake *Something* for *Nothing*, as when we say *a Room has nothing in it*, though it be full of *Light and Air*.

Q. What is meant by the *Affections* of Being ?

A. All the Properties, Powers, Accidents, Relations, Qualities, Adjuncts, Conditions, Circumstances, or Considerations of Being whatsoever ; that is, all that vast Variety of *Modes* which belong to Things, either as they are in themselves, or as they are related to other Things, or as they are represented by our Conceptions and Ideas.

Q. As the Affections of Being are so various, how are they best distinguish'd ?

A. The most general and extensive Distribution of them is into *absolute* and *relative*.

Q. What

Q. What do you understand by *absolute Affections* ?

A. Those which belong to every Being consider'd in itself ; and these are *Nature* or *Essence*, and *Existence* ; *Duration* and *Unity* ; *Power* and *Act*.

Q. What are *relative Affections* ?

A. Such as arise from the *Relations* in which different Beings stand to each other, or to some Part or Property of themselves : And these Relations may be subdivided into *real* and *mental*.

Q. Which are *real Relations* ?

A. Those which are founded in the very Constitution of Things, and always subsist whether we think of them or not. Such are the Relations between a *Whole* and its *Parts*, *Cause* and *Effect*, and several others ; of which more hereafter.

Q. Which are *mental Relations* ?

A. Such

A. Such as do not arise from the Nature of Things themselves, but from the Manner in which the Mind thinks of them, and refers them to one another. Of this Kind are our most abstracted Notions, Signs, Words, &c. as will be explain'd by and by.

C H A P. II.

Of ESSENCE, or NATURE.

Q. **W**HAT is meant by that *absolute Affection of being* call'd *Nature or Essence*?

A. It consists in a Union of all those Things, whether Substances, or Modes and Properties, which are necessary to make Being what it is. Thus it is the Nature or Essence of a Grove to be a Spot of Ground thick set with Trees; and of a Triangle to have

*have three Lines so join'd as to make
three Angels.*

Q. Is the Essence of a Being so immutable, as that the least Alteration in it makes that Being *something else* than it was before ?

A. The Essences of *mathematical* Beings (which are only a Kind of abstract Ideas) are immutable ; for it is plain that the least Alteration in a *Triangle*, a *Square*, or a *Circle*, would make it lose its Nature, and cease to be that Figure. But the Essences of *natural* Beings as well as *artificial*, are not so unchangeable ; for a *Tree* may still remain a *Tree*, though some of its Branches be lopp'd off ; and a *Door* is still a *Door*, whether it be painted blue or green. We may observe however, that if the Alteration be very great, it will be sometimes hard to say whether the Thing retains the same Essence, so as to deserve

serve the same Name ; for you may gradually lessen the Brims of a *Hat*, or cut it into such a Shape, till you will scarce know whether to call it a *Hat* or a *Cap*.

Q. Wherein does the Essence of every particular Kind of *Body* consist ?

A. In *Matter* and *Form*.

Q. What is *Matter* ?

A. It is that *solid extended Substance* of which *Bodies* are made, which seems to be uniform and the same in all.

Q. What is *Form* ?

A. The Word includes all those *peculiar Qualities*, both *real* and *sensible*, which make any particular *Body* be what it is, and distinguish it from all other *Bodies*.

Q. What is the Difference between *real* and *sensible Qualities* ?

A. The Shape, Size, Situation, Motion and Rest of Bodies are call'd their *real* or *primary* Qualities, because they do and would belong to Bodies, whether there were any sensible Being to observe them or no : And from the different Combinations and Dispositions of these primary Qualities arise the *Colour*, *Taste*, *Smell*, *Hardness*, *Cold*, *Heat*, &c. of Bodies, which are call'd *secondary* or *sensible* Qualities, as being Ideas or Modes which we attribute to Things merely as they affect our Senses.

Q. Is there no Distinction made as to the Matter of Bodies ?

A. Yes, the Matter of a Body is said to be either *proxime* or *remote*. Thus the *proxime* Matter of a Book is *Paper*, *Ink*, and *Covers* ; but the *remote* Matter is that whereof the Paper, Ink, and Covers are made.

Q. Is

Q. Is the Term *Nature* always taken in the same Sense as *Essence* ?

A. No ; by *Nature* is sometimes meant the eternal and unchangeable Reason of Things : Thus it is necessary in the *Nature of Things*, that *three and three should make six*, and that *a Part should be less than the Whole*. Sometimes this Term signifies the constant Course and Order of second Causes, and the Laws of Matter and Motion which GOD the first Cause has establish'd : And Things which go on in this Course are said to be *according to Nature* ; as the Production of *Grapes by a Vine*, the *Succession of Day and Night*, &c. But when Things deviate from this Course, they are said to be *beside Nature*, as *Monsters* ; or *above Nature*, as *Miracles* ; or *contrary to Nature*, as when *the Stock of an Apple-tree brings forth Pears*.

Pears by virtue of a Graft taken from
a Pear-tree.

C H A P. III.

Of EXISTENCE.

Q. Y O U mention'd *Existence* as
an *absolute Affection of Being* :
Pray how is it distinguish'd from *Es-
sence* ?

A. As the *actual Being* of a Thing
is distinguish'd from its mere Nature
consider'd as *possible*. What *really is*
in Being has both *Essence* and *Exis-
tence* ; what *possibly may be* can be said
to have an *Essence* only.

Q. In what Sense is a Being said to
be *possible* ?

A. When the Ideas we form of
such a supposed Being have no In-
consistency, but may be actually u-
nited, as a *Mountain of Gold*, or a
River

River of Oil ; But when the Ideas are inconsistent with each other, and cannot be united, such a Being is call'd an *Impossible* ; as *cold Fire*, or *silent Thunder*.

Q. How are *Impossibles* distinguish'd ?

A. Into four Kinds, viz. 1. Some Things are *metaphysically* or *absolutely impossible*, in the abstracted Reason and Nature of Things ; as a *square Circle*, a *green Sound*, a *thinking Sign-post*, or a *Bushel of Souls*. 2. Others are *physically* or *naturally impossible*, that is, according to the present Laws of Nature ; as a *Day in our Latitude thirty Hours long*, or *three Eclipses of the Sun in a Month*. 3. Others are *morally impossible*, that is, improbable in the highest Degree ; as that a *Man should throw the same Number with three Dice a hundred times successively*, or that an *Atheist should be strictly*

virtibus. 4. Some Things are conditionally impossible, that is, made so by a certain Condition ; as that a Tree should bear Fruit supposing it has no Bloom.

Q. Is there any farther Distinction of Existence ?

A. Yes, Existence is said to be either necessary or contingent, dependent, or independent.

Q. What is the Meaning of these Terms ?

A. Things which are because they must be have a necessary Existence ; but those which might not have been, and may cease to be, have only a contingent Existence. A necessary Being is without a Cause, and independent ; but a contingent Being is the Effect of a Cause, and dependent thereon.

Q. To what Beings do these Ideas belong ?

A. In-

A. *Independence and Necessity of Existence*, taken in the highest Sense, belong to GOD alone, whose Existence is *absolutely necessary*, and without any *pre-existent Cause*: But a Sort of *conditional Necessity* may be ascribed to Creatures; that is, such a Creature *must exist* if the Causes are put which will necessarily produce it; as, *if a Hen's Egg be hatched it will produce a Chicken*.—Here it may be proper to observe, that Beings are said to be *necessary* or *contingent*, not only with regard to their *Existence*, but to the *Manner* of it also. GOD is necessary in this Respect, as well as in the other; and therefore he is *unchangeable*: But as to Creatures, their *Manner* of Existence is *contingent*, and therefore they are *changeable* Things.

Q. What Distinctions are made of *Necessity*?

A. I.

A. It is distinguish'd into *natural*, *logical*, and *moral*. By *natural Necessity* Water congeals with Cold, and Ice melts with Heat. By *logical Necessity* a Conclusion flows from the Premisses of a Syllogism. By *moral Necessity* Virtue will be finally rewarded, and Vice punish'd; and 'tis morally necessary that intelligent Creatures should worship their Creator.

—It is to be observed, that both *Necessity* and *Contingence* are frequently applied to Events in the *Natural World*; but those in the *Moral World* are usually call'd *contingent*, being the voluntary Actions of intelligent Beings.

Q. How are *Necessity* and *Contingence* applied to the Events you speak of?

A. Events in the *natural World* are said to be *necessary*, when they are derived from the Connection of Exist-

second Causes, and those Laws of Motion which God establish'd at the Creation : But they are said to be *contingent*, or to arise from Chance, when they come unexpectedly, and are different from what is usual in the Course of Nature.

C H A P. IV.

Of DURATION.

Q. **W**HAT is meant by that absolute Affection of Being which is call'd *Duration* ?

A. Nothing more than a Continuance in Being ; and this is divided into permanent and successive.

Q. What is permanent Duration ?

A. This State of Being (strictly speaking) belongs to God alone, and implies not only his Continuance in Existence, but an universal and endless

leſs

less Possession of the same unchangeable Powers and Properties.

Q. What is *successive Duration* ?

A. This belongs to Creatures, and implies the Continuance of the same Being, though its Modes, Powers, Properties, and Actions are successively changing.

Q. How can there be any *Duration* without *Succession* ?

A. We cannot easily conceive how there should ; but this Sort of Duration is God's *Eternity*, which has some Things in it above our narrow Conceptions — It is *successive Duration* only that can properly be divided into *Past*, *Present*, and *Future*. The *Present*, in a strict Sense, is only the single Moment that *now* exists, and divides the Years or Ages past from those which are to come.

Q. Whence have Creatures this Affection of *Duration* ?

A. A

A. As *Creation* gives them Existence, so *Conservation* is said to give them Duration, i. e. a Continuance in Being. The latter is an Exercise of God's Almighty Power, as well as the former; and how far they differ, or whether they differ at all, is not our Business to enquire.

C H A P. V.

Of UNITY and UNION.

Q. **W**HAT is the Meaning of *Unity*, another absolute Affection of Being?

A. *Unity* is that whereby any Thing stands as it were alone in our Conceptions, and divided from every thing else: And this Unity is either *simple* or *compound*; for we say *one Grove*, as well as *one Tree*, and *one Army*, as well as *one Soldier*.

Q. What

Q. What is *Union* ?

A. It is that whereby *two or more Things either really become one, or are consider'd as such* : And therefore Union may be distinguish'd into *real* and *mental*.

Q. This is plain ; but is not *real Union* likewise distinguish'd into several Kinds ?

A. Yes ; it is either *natural* and *necessary*, as between a Tree and its Root ; or *accidental*, as when two Nuts grow together ; or *artificial*, as a Mixture of Wine and Water.—Again, *real Union* is consider'd as *corporeal*, *spiritual*, or *human*. By the first is meant the *Union of Bodies* which is made by blending, compounding, fastening them together, or any other Means ; as *Drugs in a compound Medicine*, a *Bundle of Sticks*, & *Spiritual Union*, or that of Minds, either *intellectual*, by mutual Consensus,

ousness of each other's Thoughts, or a Likeness of Sentiments ; or it is moral, by mutual Love or Friendship ; or supernatural, as it may relate to God and Religion. *Human Union* is that of an animal Body with a Spirit to constitute a Man ; but how this Union is effected is entirely unknown to us, and must be resolved into the Appointment of the All-wise Creator.

Q. What is *mental Union* ?

A. It is when several Things, which are really distinct and different, are consider'd as one. Thus a vast Variety of Thoughts as well as Words may be consider'd as making up one Book or Treatise.

C H A P. VI.

Of ACT and POWER.

Q. YOU mention'd two other absolute Affections of Being, call'd *Act* and *Power*; what is the Meaning of them?

A. *Act* and *Power* may be distinguish'd three Ways. 1. As *actual Being* is distinguish'd from *potential*, or a *Power to be*: Thus a House already built differs from a House which it is merely possible may be built one time or other. 2. As *actual Doing* or *Action* is distinguish'd from a *Power to do*: So the putting a Body in Motion differs from the Power of moving it. 3. As *actual Suffering* or *Passion* is distinguish'd from a *Power to suffer*: So the actual Motion of a Body is different from its *Mobility* or *Power to be moved*.

Q. I

Q. In what Sense do you here speak of *Action* and *Passion* ?

A. By *Action* I mean the Exercise of a Power *to do*, and by *Passion* the Exercise of a Power *to suffer*: But let it be observed, that the Words *Passion* and *Suffering* are here used to signify merely the receiving the Act of the Agent or *Doer* by the Patient or *Sufferer*. When a Horse rubs himself against a Tree, the Horse is the Agent, and the Tree is the Patient ; or when a Father loves his Son, the Father is the Agent, and the Son the Patient, in this philosophical Sense of the Words.

Q. Which are the most usual and proper Distinctions of *Action* ?

A. *Action* is distinguish'd into *immanent* or *transient*, *natural* or *supernatural*, *voluntary* or *accidental*, *necessary* or *free*.

P

Q. What

Q. What is the Meaning of these Terms?

A. An *immanent* Action is that which continues in the Agent, being not directed to any other Object; as when a Man loves himself. *Transient* Action passes from the Agent to some other Object or Patient; as when a Man loves his Friend, or whips his Horse. Action is *natural*, as when Fire melts Butter; or *supernatural*, as when the Prophet *Elisha* made Iron swim. When a Man drives a Nail with a Hammer it is a *voluntary* Action; but if he should miss the Nail and hit his Fingers, the Action would be *accidental*. Lastly, Action is *necessary*, as the Sun's enlightening the Earth; or *free*, as a Man can run or walk, sit or stand, dine at Twelve or Two, or not dine at all, just as he pleases.

Q. Answers,

Q. Are all human Actions *free* ?

A. The *Will* is always *free* in chusing what it likes, or refusing what it dislikes ; and so when a Man *wills* and pursues any supposed Pleasure or Happiness, he is said to do this *freely*, though indeed the *Action* is *necessary*, and he cannot do otherwise : Hence it appears, that *Necessity* is not universally and utterly inconsistent with *Freedom* and *Liberty*. But sometimes the Liberty of the *Will* is a Liberty of *chusing* or *refusing indifferently*, a Freedom or Power to chuse or not to chuse among two or more Things proposed : So a Man may chuse to walk abroad or stay at home, to speak or to be silent. This is *Liberty* in the most proper Sense, and is absolutely inconsistent with *Necessity*.

Q. Is there no Distinction of *Powers*, as well as of *Actions* ?

A. Yes, they are distinguish'd into several Kinds and Degrees. First, *Disposition* is reckon'd an imperfect Power of performing any thing, and the very lowest Degree: The next is mere *Ability*; and then a *Habit* of performing it with Ease and Certainty.—Some Powers are *corporeal*, as that of the Sun to warm the Earth; some *spiritual*, as meditating, reasoning; some *animal* Powers, as eating, waking, sleeping; some *human*, arising from the Union of Mind and Body, as Sensation and Imagination; some *vegetative*, as Nourishment and Growth.—Powers are also distinguish'd into *natural*, as that in Man of forming a Voice; *acquired*, as Music; and *infused*, as the Power which the Apostles had of speaking many Languages.

Q. Are not Powers frequently call'd by other Names?

A. Yes;

A. Yes ; those acquired by Exercise are properly call'd *Habits*: The Powers of *natural Action* in Animals, and *artificial* in Men, as Walking, Dancing, &c. are call'd *Faculties*; and in all inanimate Beings they are term'd *Principles*. The Powers of *moral Action* are also call'd *Principles or Habits*; as Justice, Temperance, &c.

C H A P. VII.

Of RELATIVE AFFECTIONS, or RELATIONS.

Q. **W**HAT have you farther to say concerning *relative Affections* ?

A. It has been observ'd before, that they arise from the *Respect* or call'd *Relation* that one Thing bears to another, or to some Part or Property

of itself ; and the same Relation is not confin'd to *two* Things, but may belong to *many*. *Greatness* and *Smallness*, *Paternity* and *Sonship*, are relative Ideas.

Q. Is there no Distinction made between the Terms of a Relation ?

A. Yes ; the Subject of a Relation, or the Thing spoken of, is call'd the *Relate* ; and the other Term, to which the Subject relates, is call'd the *Correlate*. So if we speak of a *Husband*, he is the Subject or *Relate*, and the *Wife* is the *Correlate* ; but if we are first speaking of the *Wife*, then she is the *Relate* or Subject, and the *Husband* is the *Correlate*.

Q. How many Kinds of Relations are there ?

A. They have been already divided into *real* and *mental*, but there are some other Distinctions which it may be proper to mention. 1. They
are

are *natural*; as the Relation between Father and Children, Root and Branches. 2. *Moral*, which are the Relations that the Actions of Men bear to a Law or Rule, either human or divine; and thus they are good or evil, lawful or unlawful. 3. *Voluntary*, or freely chosen; as between Friends, or Husband and Wife. 4. *Accidental*, as between Persons happening to become Neighbours, or between Trees growing in the same Grove. 5. *Reciprocal*, or *synonymous*, that is, of the *same Name*; as Cousins, Partners, Schoolfellows, &c. 6. *Not-reciprocal*, or *heteronymous*, that is, of a *different Name*; as Master and Scholar, Father and Son, King and Subjects.

Q. Which are the *real* Relations you propose to explain?

A. They are *Truth* and *Goodness*, *Whole* and *Part*, *Cause* and *Effect*,

*Subject and Adjunct, Time and Place,
Agreement and Difference, Number and
Order ; all which, as here enum-
erated, shall be briefly consider'd.*

C H A P. VIII.

Of TRUTH and GOODNESS.

Q **W**HAT is meant by *Truth* ?

A. The Word is used in various Senses ; as, 1. A Being is said to be *metaphysically true*, when it is perfectly conformable to the Divine Intellect or Idea, which is the grand Pattern of all created Beings. 2. A Thing may be said to be *physically* or *naturally true* ; as, that is *true Gold* which has all the Properties requisite to its Nature. 3. There is *logical Truth*, as when Propositions are con-

for-

formable to the Things intended ; and this is the most usual Meaning of the Word, the Propositions themselves being frequently call'd *Truths* ; of which some are probable, some improbable ; some necessary, others contingent, &c. 4. There is also *ethical* or *moral Truth* ; which is when our Words and Actions agree with our Thoughts, and our Deeds with our Words : The first is call'd *Sincerity*, which is the Truth of the Heart ; the latter *Veracity*, which is the Truth of the Lips.

Q. What is meant by *Goodness* ?

A. This is likewise distinguish'd into, 1. *Metaphysical*, as when Things are agreeable to the Will of God, and answer his Design : So he survey'd the Works of his Creation, and saw that they were *good*. 2. *Physical* or *natural*, when Things come up to a supposed Standard, or are capable of

of answering their natural End ; so Air is *good*, when pure and fit for Breathing : And in this Sense *artificial* Things are also call'd *good* ; as, a *good Sword*, a *good House*, a *good Watch*, &c. 3. Besides these there is *Moral Good*, which in general is the Conformity of our Thoughts, Words, and Actions to the Reason of Things, or the Law of God. When this regards our Neighbours or ourselves, it is call'd *Virtue* ; but when it has a Regard to God, it is call'd *Religion*.

Q. Is *natural Good* never used in any other Sense than what you have mention'd ?

A. Yes, it is sometimes used (with respect to sensible or rational Beings only) to signify whatever is *pleasant*, or which tends to procure *Pleasure* or *Happiness*.

Q. What do Ontologists call the *Union of Truth and Goodness* ?

A. They

A. They call it *Perfection*; so that when they are united in any Being, that Being is said to be *perfect*: By which is meant, that it contains all its essential Parts and Properties without Blemish, comes up to its Standard, and is capable of answering all the Ends for which Nature has design'd it. Where any of these are wanting in any Degree, the Being is call'd *imperfect*.

Q. Is not the Word *Perfection* used in different Senses?

A. Yes; *absolute Perfection* belongs to GOD alone. A Being may be call'd *perfect in its own Kind*, as a compleat Circle or Triangle; or *comparatively*, as a Picture, which so perfectly resembles the Original that no Unlikeness can be discover'd.—Again, a Being is perfect either as to *Parts*, or to *Degrees*; so a Colt is a perfect Horse with respect to his *Parts*,

Parts, but his Degrees of Growth, Strength, and Swiftneſs are imperfect. Or a Thing may be perfect as to *Quantity* and *Measure*, but imperfect in other Respects; so a Horse may be of full-grown Stature, but defective with regard to Beauty, Swiftneſs, or other *Powers* and *Qualities*.—Lastly, a Thing may be perfect with respect to *Essentials*, though not to *Circumſtantials* also; as a Garden just laid out and planted may have all the *essential* Parts and Properties of a Garden, though it have not the *circumſtantial* Perfection of Summer-Houſes, Green-Houſes, Water-Works, &c.—Sometimes the Word *perfect* is used for *excellent*; as when we ſay Men are more perfect than Brutes, and Spirits more perfect than Bodies.

C H A P. IX.

Of the Whole and Parts.

Q. **W**HAT is the Meaning of the Words *Whole* and *Part*?

A. A Being is call'd a *Whole*, when we consider it as made up of several *Parts* properly united: So that *Parts* are Beings, which join'd together in a proper Manner constitute the *Whole*.

Q. Into how many Kinds is *Whole* distinguish'd?

A. Into four, viz. *formal* or *metaphysical*, *essential* or *physical*, *integral* or *mathematical*, and *universal* or *logical*.

Q. What is a *formal* or *metaphysical* Whole?

A. It is the *Definition* of a Thing; which consists of two Parts, the *Genus* and the *Difference*, that is, the *general* and

and the *special* Nature of a Thing defined.

Q. What is an *essential* or *physical* Whole ?

A. It is applied to natural Beings, whose Essence is supposed to consist in *Matter* and *Form*. It is likewise usually made to signify the two *essential Parts* of *Man*, viz. *Body* and *Soul*. But in a larger Sense it may include the *Substance* of a Thing, with all its *essential Properties*.

Q. What is an *integral* or *methematical* Whole ?

A. An *integral* Whole is when the several Parts of it have a proper Existence of their own, and are really distinct from one another : Thus the Body of a Man is an *integral* Whole, consisting of Head, Limbs, and Trunk, all which have a real Existence in Nature, when separately consider'd. This is call'd a *methematical* Whole, when

when applied to Number, Time, Dimension, or any thing that has proper Quantity.

Q. What is an *universal* or *logical Whole*?

A. It is a Genus including several Species, or a Species including several Individuals. Thus *Animal* is a *Whole* with respect to *Man*, *Beast*, *Bird*, and the other Species, which are its Parts ; and *Man* is a *Whole* with respect to *John*, *Thomas*, *William*, and the rest of its Individuals.

Q. Can these several Kinds of *Whole* be applied to *Spirits* as well as to *Bodies* ?

A. Yes, except the *mathematical Kind*. For Instance : A Spirit is defined a *thinking Substance* ; Substance is the Genus, and Thinking the Difference, which make up the *metaphysical Whole*. So Perception, Judgment, Reason, &c. are the essential Parts

Parts or Powers of a Spirit, which make it a *physical* or *essential* Whole. When we speak of a whole Host of Angels, this is a Whole of the *integral* Kind : And when we consider Spirit as a Genus, and human Souls and Angels as the Species, that is a *logical* or *universal* Whole.

Q. Is there any Distinction made of *Parts* ?

A. Yes, they are distinguish'd into *homogeneous*, or of the same Kind ; and *heterogeneous*, or of different Kinds. Of the first Sort are the Branches of a Tree ; of the latter are the Parts of a House, which consists of Stone, Wood, Iron, &c.

N. B. That which is a *Whole* in one Sense may be a *Part* in another, as a whole Page is a Part of a Book of w —A Part of a Part is also a Part of the Whole ; as a Line is a Part of a Book, because it is Part of a Page.

C H A P. X.

Of CAUSES and EFFECTS.

Q. **W**HAT is the meaning of *Cause* and *Effect*?

A. A *Cause* in general is a Principle distinct from the Thing produced, and has some real Influence on its Existence. An *Effect* is that which is produced, done, or obtain'd by the Influence of some other Being, which is call'd the *Cause*.

Q. Is a *Principle* and a *Cause* the same Thing?

A. Not a'ways, though frequently, as will appear by considering the different Kinds of Principles. I. There are Principles of *Essence* or *Existence*; Book of which some are continent, as Herbs, part of Metals, and Minerals are the Principles of Medicines, for they contain the Salts, Oils, Spirits, &c. extracted

Q.

from

from them by the Chymists, Some are *constituent*, as the Stones, Timber, &c. of which a Building consists: But this Sense of the Word *Principle* is not quite so proper as the former. Others are *causal*, and such are all the Causes hereafter enumerated.

2. There are Principles of *Knowledge*, which are either *internal*, as Reason; or *external*, as Books: And these are either *natural*, as Sense; or *supernatural*, as Inspiration. The Principles of Knowledge are also *simple*, as Ideas; or *complex*, as Propositions.

3. There are Principles of *Operation*: and these sometimes include the operating Beings themselves, as Painters, Warriors, &c. as well as their natural and moral Powers, and supernatural Influences. — But almost all Principles, except the *continent* and *as constituent*, may be rank'd among the Causes of one Kind or other.

Q. How many Kinds of Causes are there ?

A. The Distinctions of Causes are numerous ; in general they may be divided as follows. 1. Into *universal* and *particular* : Thus the Sun, Earth, and Rain are the *universal* Causes of Plants, Herbs, and Flowers ; but the Seeds of each are the *particular* Causes. 2. Into *remote* and *proxime* ; as a Father is the *proxime* Cause of his Son, and a Grand-father the *remote* Cause. 3. Causes are call'd *univocal* when they produce Effects of the same Nature with themselves, as when a Rabbet produces a Rabbet ; or *equivocal*, when the Effect is of a different Nature, as when a Man writes a Book, or makes a Pair of Shoes. 4. Causes are *sole* or *solitary*, as when a Pestilence destroys a City ; or *social*, as when it is plunder'd and burnt by an Army, consisting of Officers

ficers and Soldiers. *Total* and *partial* is a Distinction near akin to the former.
 5. *Physical* Causes are those which work by natural Influence ; and *moral*, those which work by Persuasion.
 6. Causes are *ordinary*, when they work according to the usual Course of Nature ; and *extraordinary*, when they are productive of Miracles. — Thus much for Causes *in general*.

Q. Which are the chief *particular Kinds of Causes* ?

A. Leaving out the common Distinction of *material* and *formal*, (since *Matter* and *Form* are not properly Causes) they may be distributed into four Kinds, viz. *emanative*, *efficient*, *instructive*, and *suasive*.

Q. What is meant by an *emanative Cause* ?

A. It is that from which the Effect flows without any Action to produce it ; as Heat from Fire, a sweet Smell from

from Flowers, or Water from a Spring.

Q. What is an *efficient Cause* ?

A. It is that which produces the Effect by some Sort of *active Power* or *natural Agency*, and therefore most properly deserves the Name of a *Cause*; as, when a Man rolls a great Stone down a Hill, and the Stone beats down a Wall, and the Wall kills a Cow or Horse that lay under it. Here are three distinct Causes, producing three distinct Effects.—But *efficient Causes* are divided into various Kinds. 1. They are either *first* or *second*: and a Cause may be first *absolutely*, which is applicable to **G O D** alone; or first *in its own Kind*, as a Gardener who plants Trees in his Garden is the *first* Cause of their Growth, and his under Agents are *second* Causes. 2. They are distinguish'd into *principal*, *less principal*, and

Instrumental. The Architect is the principal Cause of building a House; the less principal are Bricklayers, Carpenters, &c. and the *instrumental* are Trowels, Hammers, Saws, Axes, &c.

3. Efficient Causes are *internal* or *external*, which Words need no Explanation.

4. They may be *exciting* and *disposing*, as fine Fruit excites us to eat it; or *compelling* and *constraining*, as when a Farrier gives a Horse a Drench.

5. A Cause is *forced*, as when a Man to avoid a mad Dog jumps into a Boat and oversets it; or *free*, as when a Man sinks a Vessel by boring Holes in the Bottom of it.

6. Efficient Causes may be *necessary*, as when Fire burns a Child that falls into it; or *contingent*, as when a Person is kill'd by a Tile falling from a House.

7. A Cause may be *accidental*, as the Breaking of a Window by throwing a Stone at a Bird; or *designing*

signing

signing, when the Mischief is done on purpose. 8. Causes may be *procuring* or *confirming*, *preventing* or *removing*: Thus Medicines confirm or procure Health, and prevent or remove Diseases. 9. *Creative*, *conservative*, *destructive*, and several other Distinctions of Causes need not be explain'd; their very Names describing them sufficiently.

Q. What is meant by an *instructive* Cause?

A. That which operates either by manifesting the Truth, or directing the Practice; and accordingly it may be call'd *manifestative* or *directive*. In the *Manifestation of Truth* this Cause is sometimes *silent*, as a Book, a Map, a Picture, &c. and sometimes *vocal*, as a Watchman tells us the Hour of the Night, and a crowing Cock the Approach of the Morning. In the *Direction of Practice* this Cause is

either a *Rule* teaching us how to act or a *Pattern* for our Imitation; or it is a Guide, in which both *Rule* and *Pattern* seem to be included.

Q. What do you mean by a *Suasive Cause*?

A It is something which works upon the Mind of a voluntary Agent, and inclines it to act, either by Intreaty or Authority, by Commands or Counsels, by Fear or Hope, or any other Motives. *Suasive Causes* are either *personal* or *real*: The *personal* are the Persuader, Encourager, Commander, &c. and the *real* are the End or Design, the Object, Opportunity, &c. In a word, any Thing that tends to affect and persuade the Will may be properly call'd a *Suasive Cause*.—Of this Sort of Causes the *End or Design* is reckon'd one of the chief.

Q. What

Q. What Name is usually given to this last-mention'd Cause ?

A. It is commonly call'd the *final* Cause, by which is understood *that for the sake whereof any thing is done.* For Instance, A Man labours hard for a Livelihood ; in this Case his Labour is call'd the *Means*, so that the End is the *Cause*, and the *Means* the *Effect*. Victory and Peace are the *final Causes* of War.

Q. Are there not various Distinctions of *final Causes* ?

A. Yes, but many of them are scarce worth mentioning. The principal seems to be the Distinction of an End into *ultimate* and *subordinate* : And an ultimate End is either *absolutely* so, as the Glory of God and our own Happiness should be the End of all our Actions ; or it is *ultimate in its own Kind*, as Knowledge is the chief End of Reading. Subordinate Ends are such

such as tend to something farther; as Knowledge is sought in order to practise.

Q. Are there no other kinds of Causes that are worth taking notice of?

A. Yes, there are three, *viz.* a *deficient* Cause, a *permissive* Cause, and a *Condition*; though these have obtain'd the Title of *Causes* for want of a fitter Name.

Q. What is meant by a *deficient* Cause?

A. When the Effect is in a great measure owing to the Absence of something that would have prevented it, the Cause is call'd *deficient*; so that it may be reckon'd a *negative* rather than a *positive* Cause. Thus the Want of Rain is the deficient Cause of the withering of the Grafs, and of the Dustiness of the Roads; and a Leaf is the deficient Cause of a Ship's sinking.

ing, or of Liquor's running out of a Vessel.

Q. What is the meaning of a *permissive Cause* ?

A. A *permissive Cause* is that which removes obstructions, and lets the proper Causes operate : And this Sort of Cause is either *natural* or *moral*.

1. A *natural permissive Cause* removes natural Impediments ; so the opening of the Window-Shutters is the Cause of Light's entering a Room, and the letting loose a Rope is the Cause of a Boat's running adrift. 2. A *moral permissive Cause* removes moral Impediments or Prohibitions, and gives leave to act : Thus a Master is the permissive Cause of his Servant's going to a Horse-race, and so is a General of his Soldiers plundering a City. The taking off an Embargo is the permissive Cause of a Ship's failing

sailing out of Port, which had been thereby detain'd.

Q. Why is a *Condition* rank'd amongst these Causes?

A. Because it is a Sort of Cause *without which the Effect is not produced*. It is generally applied to something which is requisite in order to the Effect, though it has no actual Influence in the Production of it. Thus Darknes is a Condition without which we cannot see the Stars; and a handsome Dress, and a Head uncover'd, is a Condition of being admitted into the King's Presence.

C H A P. XI.

Of SUBJECT and ADJUNCT.

Q. **W**HAT is the Meaning of the next *real* Relations you mention'd, viz. *Subject* and *Adjunct*?

A. What

A. What has been said in the first Part of *Logic* (Chap. II.) where *Substances* and *Modes* are treated of, may be consulted, but need not be here repeated. In this Place the Word *Subject* is rather considered as having *accidental Modes* than those which are *essential*; and these *accidental Modes*, or *external Additions* which adhere to the *Subject*, or *Names* and *Denominations* by which it is call'd, are what is here to be understood by *Adjuncts*.

Q. Which are the most considerable *Adjuncts* of Actions or Appearances?

A. They are what we call *Circumstances*, which include Time, Place, Light, Darkness, Cloathing, the Situation of other Things or Persons, with all the concomitant, antecedent, or consequent Events.

Q. Do not *Subject* and *Object* signify the same Thing?

A. When

A. When we consider Things as the Subjects of Occupation, Operation, Thought, or Discourse, they are then properly call'd *Objects*; as Leather is the *Subject* or *Object* on which a Shoemaker works, about which he is busied, or of which he thinks or discourses.

Q. Into what Kinds are *Objects* distinguish'd?

A. Into *immediate*, and *remote*; as the Words and Sentences of a Book are the *immediate Object* of a Student's Occupation; and the Art, Science, or Doctrine taught by that Book is the *remote Object*. They are also distinguish'd into *common* and *proper*; as the Size, Figure, and Motion of Bodies are *common Objects* of the two different Senses of Sight and Feeling; but Colours are *proper Objects* to the Sight only, and Cold to the unif. Feeling. Lastly, they are either *material*

terial or formal ; as the Body of a Man is the material Object both of *Physic* and *Anatomy*, and Dissection and Healing are the formal Objects of those two Sciences.

C H A P. XII.

Of TIME and PLACE.

Q. **W**HAT is meant by the Affections of *Time* and *Place*?

A. *Time*, as consider'd by Ontologists, is that Part of Duration which terminates the Interval of the Existence of Things ; or it is what we call *successive Duration*. It is divided into *past*, *present* and *future*, (as has been before mention'd) and is usually measured by the Motion of some Bodies, which is supposed to be most regular, the uniform, and certain. These are either the heavenly Bodies, as the Sun, Moon,

Moon, and Stars, which are *natural Measures* of Time; or there are Hour-Glasses, Clocks, Watches, &c. which are *artificial Measures*. And thus Time is divided into Years, Months, Weeks, Days, Hours, Minutes, &c. and as it commonly refers to something that measures it, it is esteemed a *relative Affection*.

Q. What is meant by *Place*?

A. It is the *Position* or *Situation* of *Bodies*; and it is frequently distinguish'd into *absolute* and *relative*.

Q. What is *absolute Place*?

A. It is that Part of the supposed infinite Void or Space which any Being fills up or possesses, consider'd simply in itself.

Q. What is *relative Place*?

A. It is the Situation that any Being has with respect to other Bodies round about it, which are supposed quiescent, or at Rest.—We usually

con-

conceive of Things in this Manner : But if Space (as some Philosophers maintain) be only a Creature of Imagination, a mere *Nothing*, then all Place is properly *relative*, and if a Body existed alone it would have no Place at all.

Q. Is *Place* applied to *Spirits* as well as *Bodies* ?

A. *Ubiquity* is a Term used to signify the Place of *Spirits* ; though it must be confess'd we have no clear Idea how they can have any proper Locality, Situation, Nearness, or Distance with respect to Bodies, without changing their very Nature, and making them quite other Beings than what they are. The *Ubiquity* of a Spirit ; therefore, can only properly refer to such a Part of the material World, of which it has a more evident Consciousness, and on which it has a Power of acting. When we say that

GOD, the Infinite Spirit, is every where, we mean that he has an immediate and unlimited Consciousness of and Agency upon all Things, and that his Knowledge and Power extend to all Possibles, as well as to all actual Beings ; for he knows and he can do whatsoever can be known or done. When we say *the Soul of Man is in his Body*, we mean that it has a Consciousness of the Impressions made on the Body, and can excite particular Motions therein at pleasure.—The Situation of Bodies in a certain Place is sometimes call'd a *circumscriptive Presence* ; that of a Spirit by its Consciousness or Operation is term'd a *definitive* or limited Presence ; and the Omnipresence of GOD has been call'd his *repleteive Presence*, because he fills Heaven and Earth, as the Scripture expresses it.

C H A P. XIII.

Of AGREEMENT and DIFFERENCE.

Q. **W**HAT is meant by the Relations call'd *Agreement* and *Difference*?

A. The *Agreement* and *Difference* of Things are Words which need no Explanation. They are found out by comparing one Thing with another, or the same Thing with itself at different Times and Places, or under different Circumstances or Considerations.

Q. Into what Kinds is *Agreement* distinguish'd?

A. It is either *real*, that is, in Substance; or *modal*, i. e. in Modes, Properties, or Accidents; or *mental*, that is, such as is made only by our Conceptions.—An Agreement in Essence, Quantity, or Quality, is call'd *internal*; as that in Causes, Effects, Ad-
R 2 juncts,

juncts, Names or Circumstances, is call'd *external*.—Agreement is *total* and *perfect*, where there is no Difference at all ; or *partial*, where there is a Difference in some Respect.—An Agreement in *Essence* is call'd *Sameness* or *Identity* ; but Agreement in *Quality* is properly call'd *Likeness*.

Q. Is not Agreement in *Quantity* sometimes call'd *Sameness* ?

A. Yes, but more properly *Equality* : So five Shillings are said to be the *same* with a Crown, that is, *equal* to it, as containing the same *Quantity of Silver*. But sometimes an Agreement in *Value* arises from the Difference of *Quality* compensating the Defect of *Quantity* ; as a Guinea in *Gold* is equal to one and twenty Shillings in *Silver*.—Where there is not an *absolute Sameness in Quantity*, the Agreement is call'd *Proportion* : So there is a *Proportion* between Six and Twelve,

Twelve, for one is the Half of the other ; and between three Fours and Twelve, for they are equal.

Q. In what farther Sense is the Word *Sameness* used ?

A. Two or more Things may be said to have the *same general Essence* or Nature ; as Beasts, Birds, and Fishes agree in this, that they are all Animals : Or they are said to have the *same special Nature* ; as Trout and Oysters agree in that they are Fishes. But *individual* or *numerical Sameness* of Nature or Essence can be ascribed to one and the same Thing only ; as a Man of a hundred Years of Age is the same Individual that he was when a Boy of six, or a Youth of twenty.

— There is another Distinction of *Sameness* into *material* and *formal*. Tobacco is the same Body *materially* when it is dried and ground into Snuff, as when it is green and growing in the

Field ; but it is not *formally* the same.

Q. As *Sameness* bears different *Senses*, is not *Likeness* also distinguish'd into several Kinds?

A. Yes ; though *Likeness* or *Similitude* is chiefly applied to Qualities, yet it sometimes relates to Natures and Substances themselves ; and it may be either *total* or *partial*.—*Likeness* is also in the *same Kind*, as one Egg is like another ; or in a *different Kind*, as a Picture may be like a Statue, or as Poesy resembles Painting ; which last Sort of *Likeness* is sometimes call'd *Analogy*.

Q. Does not *Analogy* sometimes signify *Proportion* ?

A. Yes ; and we get the Idea of it by comparing two Quantities together, and considering the Relation they bear to each other. In a Word, *Proportion* includes every Sort of Agree-

g reement in *Quantity*, (except individual Sameness) whether it be Time, Magnitude, or Number; and thence arise the Ideas of *equal* and *unequal*, *greater* and *lesser*; or *more* or *fewer*, &c. *Proportion* may also be applied to any *Qualities* that admit of Degrees of Difference, as Whiteness, Sweetness, Cold, Heat, Good, Evil, &c.

Q. After thus explaining *Agreement*, what have you to say of *Difference*?

A. Let it be observ'd, that *Difference* is not here taken in a logical Sense for the primary *essential Mode* of any Being, which join'd to the *Genus* makes a *Definition*; but it includes every *Distinction* of one Thing from another.

Q. Is not *Difference* divided into various Kinds?

A. Yes; it is either *real*, (i. e. *substantial*) as one Substance differs from another; or *modal*, when it relates to

Modes, Properties, or Qualities ; or *mental*, when it is only made by the Mind.—*N. B.* The Difference between Modes or Properties is sometimes call'd *real*, because it is founded in the Nature of Things ; and so is opposed to *mental*, which is made only by our Conceptions.

Q. Are there no other Divisions of Difference ?

A. Yes ; *Difference* or *Disagreement* will admit of much the same Divisions as belong to *Agreement*, which therefore needs not be repeated.

Q. But is not the Disagreement of Things express'd by various Names ?

A. Yes ; a Disagreement in Substance or Essence is call'd *Diversity* ; in Quality, it is *Diffimilitude* ; and in Quantity it is opposed to *Sameness*, and is then peculiarly call'd *Difference*. As it stands opposed to *Proportion*, it is call'd *Disproportion* ; that is, where there

there is no Proportion at all, as between *Finite* and *Infinite*; but the Word is frequently used in a more vulgar Sense, sometimes to signify any great Difference between two Quantities or Numbers, as one is *disproportionate* to ten Millions and sometimes it means that one Part or Adjunct of a Thing is too large or too small for the others; as a Man's Mouth or Nose may be *disproportionate* to his Face.—The chief or highest Kind of Disagreement is call'd *Opposition*, and there are reckon'd five Sorts of *Opposites*.

Q. Which are the Names of the Kinds of *Opposites*?

A. 1. Some are call'd *Disparates*, as Red, Blue, Yellow, &c. but these seem to be improperly reckon'd *Opposites*, since they are only *different Species* under the *same Genus*. 2. Others are *relative Opposites*, as *Master* and

and Servant ; but neither can all Relatives be properly call'd *Opposites*, as two Friends cannot who agree in their Humours and Sentiments. 3. *Contraries* are a proper Kind of Opposites, as *hot* and *cold*, *white* and *black*. 4. So are *privative Opposites*, as *Sight* and *Blindness*. 5. The last Kind are *negative Opposites*, or *Contradictories*; as *Honour* and *Dishonour*, *Perfection* and *Imperfection*.

N. B. Among *Contradictories* some are express, and others implied ; as a *square Circle* is an express Contradiction, but a *religious Villain* is only an implicit one, meaning a Person who is religious in Words, but the reverse in Practice.—Observe also, that *Contraries* are call'd *mediate* when there is some middle Quality or Medium which partakes of both the Extremes ; as *like warm* between *hot* and *cold* : But where there is no such Medium they are

are term'd *immediate*, as *living* and *dead*.

C H A P. XIV.

Of NUMBER and ORDER.

Q. **W**HAT is the Meaning of *Number* and *Order* ?

A. *Number* is a Manner of Conception, whereby several distinct and separate Things are reckon'd together, and consider'd as *more* or *fewer*.

Q. Is not an *Unit* or *One* a Number?

A. It is rather *Part of a Number*, for *Number* is made up of many *Units* put together; and therefore *Number* is a *real relative Affection* of Being, as it plainly denotes a Relation between two or more Beings or Ideas.—*Number* is call'd *discrete Quantity*, because its Parts are distinct;

as

as *Magnitude* is call'd *continued Quantity*, because its Parts are united.

Q. What is meant by *Order* ?

A. Our Idea of *Order* arises from considering one Thing as being *before*, *together with*, or *after* another ; according to which it is said to be *prior*, *simultaneous*, or *posterior*.

Q. Into how many Kinds is *Order* distinguish'd ?

A. Into five. *viz.* 1. The Order of *Nature*, as a Father is before his Son. 2. Of *Time*, as the Spring is before the Summer. 3. Of *Place*, as the Horse is before the Cart. 4. Of *Dignity*, as a Duke is before an Earl. 5. Of *Knowledge*, as we learn Letters before Syllables, and Syllables before Words.

Note, Things are said to be *together in Time*, either when they begin together, as Fire and Heat ; or when they co-exist with each other during some

some Part of their Life, Time, or Being ; as *Socrates* and *Plato* are said to be *Cotemporaries*, though the former was born many Years before the latter.

C H A P. XV.

Of MENTAL RELATIONS.

Q. **Y**OU have now gone through the *real Relations of Being* ; what have you to say concerning those that are *mental* ?

A. It has been already observ'd, that *mental Relations* have no Foundation in the Nature of Things themselves, but arise merely from our Manner of conceiving them. These Relations therefore may be known by this Consideration, that if there were no intelligent Beings to conceive of them,

them, such Relations could never have existed.

Q. Which are the chief Kinds of mental Relations ?

A. They are *pure abstracted Notions, Signs, Words, Terms of Art, and external Denominations.*

Q. What do you mean by *pure abstracted Notions* ?

A. They are what Ontologists call *second Notions, second Intentions*, mere Creatures of the Mind : But observe, it is not every Degree of *Abstraction* that makes a *mental Relation*. If we abstract the common Idea of *a Man* or *Humanity* from the particular Ideas that distinguish *Thomas* and *Francis*, this is an *abstract Idea* ; though it is not a mere *mental Relation*, because it is Part of the *real and absolute Idea* of *Thomas* or *Francis* : But if we abstract this common Idea of *Humanity* yet farther, by considering it as a *special*

cial Nature agreeing to several Individuals, and so call it a *Species*, this is a *mental Relation*; and so is the abstract Idea of *Animal* call'd a *Genus*. These and the like Ideas are form'd by a *second Abstraction*, and may therefore be call'd *pure abstracted Notions*; which, having no Reality or Existence in Things themselves, are properly term'd mere *mental Relations*.

Q. What is meant by *Signs*?

A. A *Sign* is that which represents to the Mind something besides itself, which is call'd the *Thing signified*.

Q. Are there not various Kinds of *Signs*?

A. Yes, the chief of which are the following. 1. Signs are *natural*, as a Beard is of Manhood; or *instituted*, as Baptism of washing away Sin, or as a Constable's Staff is a Sign of his Office. 2. Some are mere *Tokens* or *Pledges*, which do not at all represent

sent the Thing signified, as the Rainbow is a Token to assure us that the Earth shall not be drowned again.

3. Signs are *antecedent*, as the gathering of Clouds is of approaching Rain ; or *concomitant*, as Shivering is of an Ague ; or *consequent*, as a Funeral is of Death. 4. Another Distinction of Signs near akin to the former is into *prognostic*, as a Hiccup with an intermitting Pulse are Prognostics of Death ; *memorial*, as a Funeral Ring is of a Friend deceased ; and *commonstrative*, as a Tomb is of a Person buried there. 5. Signs are sometimes *necessary* and *certain*, as the Morning-Star is of the Rising of the Sun ; and sometimes *contingent*, or *probable*, as Prudence and Industry are probable Signs of a Man's thriving in the World.

Q. Are not Words call'd Signs ?

A. Yes,

A. Yes, and they may be reckon'd the chief Kind of all, as they are the most universal Signs of our Thoughts or Ideas. But though all Words and Names are Signs invented by the *Mind*, and signify Things from the mere *Appointment* and *Agreement of Men*, and are therefore *Mental Relations*; yet those are more eminently so which are call'd *external Denominations*, that is, Names given to Things upon Account of some Idea which the Mind affixes to them, rather than for any thing that really belongs to them; as if we say, such a building stands on the *right* or the *left* Side of the Road, these are mere *outward Denominations*, which depend on turning one's Face this Way or that. — Of this Kind are *technical Words*, or *Terms of Art*, which are used to signify the Manner of our Conception of Things; as if I say, *a Hawk*, is a

Yes,

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Species

Species of Birds: the Word *Species* is a Logical Term of Art, and may be call'd a *mental Relation*.

N. B. Besides these already mention'd, there are various symbolical Signs and Representations of Things, invented and used by Artists; as the *Characters of Algebra, Music, &c.*

C H A P. XVI.

Of the chief Kinds of BEING.

Q. INTO how many Kinds is *Being* usually distinguish'd?

A. Into *Substances* or *Modes*; *finite*, or *infinite*; and *natural*, *artificial*, or *moral*.

Q. What Sort of Beings are call'd *Substances*, and what are *Modes*?

A. Every Being that may be consider'd as subsisting of itself, is call'd *Substance*; as an Angel, a Man, a *viz.* Horse, a Tree, a Stone, an Apple either *either* But when we consider it as subsisting *stance* by

by means of some other Being to which it belongs, it is then call'd a *Mode*; as Length, Colour, Shape, Wisdom, Roughness, Smoothness, &c.

Q. Can *Modes* be properly call'd *Beings*?

A. When we give them that Name, we only mean that they have a *real Existence* in Nature; though this indeed is denied by some Philosophers, who from thence are call'd *Nominalists*, as those who maintain the contrary Opinion are call'd *Realists*. It must be granted, however, that *Being* does not belong to *Modes* in so full and strong a Sense as it does to *Substances*.

Q. How many Kinds of *Substances* are there?

A. Only two that we know of, viz. *Material* and *Intelligent*; that is, either *Bodies* or *Spirits*: But the Substance of *Spirits* is of so fine and sub-

tle a Texture, as not to be the Object of our Senses.

Q. How many Kinds of *Modes* are there?

A. They are distributed into various Kinds, the chief whereof have been enumerated and explain'd in *Lægic*, (Part I. Chap. II.) to which we refer the Reader.

C H A P. XVII.

Of Finite and Infinite Beings.

Q. **W**HAT is meant by the next Distinction of Beings into *finite* and *infinite*?

A. *Finite* Beings are those which are limited or bounded, either with respect to their Natures, Parts, Quantity, Qualities, Powers, or Duration: But those are *infinite* which are unlimited, or have no Bounds.

Q. Are all *Substances* either *finite* or *infinite*? **A.** Yes,

A. Yes, either in respect of their *Quantity*, or of their *Powers*. Created *Spirits* are said to be *finite*, as well as *Bodies*; not as to *Quantity*, for we have no Idea of their *Dimensions*, but as to their *Qualities*, their *Knowledge*, their *Goodness*, and all their *Operations*. They are allow'd, however, to have an unlimited Duration with regard to the Future, though not with regard to the Past; that is, they may have no End, though they had a Beginning: And this Duration is usually call'd *Immortality*.—We commonly call *Space* infinite, which some Philosophers will not allow, making it a mere *Nihility*, or the Limit of *Existence*, as Existence may be said to limit Nihility.

Q. Are all *Modes* either *finite* or *infinite*?

A. No, some cannot be call'd either; for though we can say *finite* or *infinite* *Knowledge*, *Patience*, *Length*, *Breadth*

Breadth, &c. yet we cannot say a finite or infinite Colour, Roughness, &c.

Q. How is God said to be infinite?

A. With respect to his *Essence*, his *Duration*, or his *Attributes*. The Infinity of his Essence is his *Immensity* or *Omnipresence*: The Infinity of his Duration is his *Eternity*, without Beginning and without End: The Infinity of his Attributes implies that his Knowledge, Power, Holiness, Goodness, &c. are infinite, that is, every way perfect in the most absolute Sense.

N. B. There is no Medium between *Finite* and *Infinite*; for what we call *Indefinite* is only that of which we know not the Limits.

C H A P. XVIII.

*Of NATURAL, ARTIFICIAL, and
MORAL Beings.*

Q. IN the last Place you distinguish'd Beings into *natural*, *moral*, and *arti-*

artificial; what is the Meaning of those Words?

A. *Natural Beings* are those which have a real and proper Existence, and are consider'd as form'd and appointed by GOD the *Creator*; as Spirits, Bodies, Men, Beasts, Birds, Fire, Air, Water, Light, Sense, Reason, &c. For though some of these are produced by others, as Animals produce their own Species, yet GOD is properly the Author of them all, either immediately, or by the Laws of Nature he has ordain'd.

Q. Which are *artificial* Beings?

A. Those which are made by the Skill, Contrivance, and Operations of Men; as Houses, Pictures, Garments, Paper, Propositions, Arguments, Sciences, Books, &c.

Q. Which do you call *moral* Beings?

A. Those

A. Those which relate to the *Manners*, *Conduct*, and *Government* of intelligent Creatures, endued with Freedom of Will, and under Obligations to particular Actions of Duty. Thus Law, Virtue, Vice, Sin, Righteousness, Justice, Injustice, Reward, Punishment, &c, are call'd *moral* Beings; but under this Consideration they are only *modal*.—In this Manner, new Names might be given to different Beings, by calling them *political*, *mathematical*, *theological*, *medicinal*, &c. as they are treated of in the several Sciences: But these had better be call'd *different Ideas* than *Beings*; as Rebellion, Allegiance, Treason, &c. are *political* Ideas; Length, Breadth, &c. are *mathematical*; and Holiness, Repentance, Salvation, &c. are *theological*.



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